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June 30th, 1954

Report of Use of High-Pressure (Silicone) Thread Compound

In answer to a questionnaire of February 11, 1954, to purchasers of High-Pressure Thread Compound, conforming to API Bul 5A2, relative to the experience gained from use of this product, considerable information was sent into the Dallas office for summarization, in accordance with an action taken by the pipe committee at Pittsburgh.

Replies were received from both oil company and manufacturer users of the thread compound, and these are summarized as follows:

1. CASING AND TUBING

1-a. Number of Companies Returning Completed Questionnaires

Nine companies returned the questionnaires supplying data obtained under fairly representative conditions encountered in oil fields throughout the United States. The information supplied was not uniform, so it was not always possible to give complete data in this report.

1-b. Amount and Type Casing Run with Thread Compound

Joints	Footage	Pipe Description
555	16,100	Used[1] 9⅝ in., 40 lb., J-55 8 RT (2300 ft. per well)
307	9,500	New 7 in., 20 lb., J-55 seamless
620	18,600	New 7 in.
378	10,900	New 7 in., 23 and 29 lb., N-80 LTC and New 5½ in., 17 lb., N-80 x-line, mixed
400	12,000	Unidentified size of which 208 joints were shipped from Mill with compound as sealer.
167	5,000	7 in., 23 lb., J-55, STC[2]
2427	72,100	Totals[3]

[1] Note **used** casing.
[2] Pipe field tested to 3500 psi. to establish leak resistance of mill-applied connections made up with non-API compound. Twenty-two joints thus tested failed to hold test pressure and were discarded prior to running in well.
[3] Approximate.

1-c. Amount and Type Tubing Run with Thread Compound

Joints	Footage	Tubing Description
677	25,600	2⅞ in., 6.5 lb., J-55 and N-80, 9% Ni Hydril CS jts
389	12,200	2⅞ in., N-80
145	4,500	2⅜ in., J-55 EUE, API tube-coated
439	13,628	2⅜ in., 4.7 lb., J-55 EUE
602	18,700	2⅜ in., 4.7 lb., N-80, EUE
130	4,000	EUE, 8 RT[1]
1340	41,600	J-55 and N-80 EUE 8 RT
3722	120,228	Totals[2]

[1] Run twice in well at depth of 6500-10,500 ft., both times with high-pressure thread compound applied.
[2] Approximate.

[1] Run twice in well at depth of 6500-10,500 feet, both times with high-pressure thread compound applied.
[2] Approximate.

1-d. Miscellaneous Information

The only method of shipment mentioned by any producer was by rail.

The length of time involved in the tests was indicated in only several instances, and varied from about six months to over two years.

Where mentioned, after cleaning and brushing the threads, the compound was applied by brush, and the casing or tubing run according to usual API methods. One user also mentioned that, before applying compounds, the threads were washed with a solvent and then dried, while another stated the compound was applied to both couplings and pin ends.

Weather at time of application, given in only one case, was said to have been foggy and humid at 60 deg. F. to clear and dry at 77 deg. F.

The hydrostatic test pressures, make-up torque, bottom-hole conditions, setting depths and type of production are shown in the tabulation herein.

1e. **Laboratory and Mill Tests Reported**

1. Tests were made in the laboratory under severe conditions of varying temperatures and pressures with water and nitrogen gas as testing mediums. Hydrostatic test pressures to a maximum of 17,500 psi., and nitrogen gas pressures to a maximum of 15,000 were employed along with varying temperatures of atmospheric to 175 deg. F. With API round thread and integral connections with OD of female member 5/32 in. + smaller than API coupling OD, no leakage was experienced in the hydrostatic tests. More than 50 per cent of specimens leaked nitrogen gas before completion of 100 temperature-pressure cycles.

2. Tests made by another company consisted of connecting a number of 2⅜-in., N-80, EUE, 8 RT tubing pup joints together with tubing couplings, and lubricating one end with the high-pressure compound and the other with a 65 per cent zinc-thread compound. When tested hydrostatically, at pressures not given, it was indicated that the high-pressure thread compound possessed somewhat superior lubricating properties together with definitely superior sealing qualities.

An initial gas-retention test was made by sealing API 8 RT well-head connections with the high-pressure compound. The compound successfully sealed against 5800 psi. static gas pressure for approximately 10 minutes.

3. Other reports. One manufacturer made a complete report of mill tests on the thread compound with results so much at variance with all other reports that they were not included in the summary given herein.

4. A flow controls manufacturer submitted a detailed report on the results obtained from the use of the API thread compound for sealing the interstices of small diameter threads in an effort to obtain better threading practices and protection throughout the life of the thread.

This company is primarily engaged in selling and servicing subsurface flow controls employed in the production of crude oil, gas, and gas-distillate. These subsurface controls are usually installed and serviced after the tubing is landed and the well is brought in and placed in a producing condition. The very nature of this work dictates the use of small diameter screw threads, high pressure metal to metal seals, and corrosion resistant materials. Subsurface items on which the compound was tested were a number of two-zone pumps.

Prior to the use of the high-pressure thread compound, it was found that considerable "leaching" occurred in the threaded joints when placed in the well. This "leaching" or drying out of the thread compound while in the well-bore was thought to be the cause of numerous galled threads occurring at the time of break-out during equipment service periods. Threaded joints galling at the time of make-up had also been experienced. The regular and special shop manufacturing processes were changed and altered, and an improvement was felt to have been made in this thread condition.

Shortly after April, 1952, the use of the high-pressure thread compound was started. Approximately 123 two-zone pumps later, and one year and seven months of field service later, only two thread sealing and galling malfunctions had been experienced.

The following table indicates "before and after" comparison of usage of the compound with two-zone pumps:

The summarized conclusions drawn from use of the thread compound by this company were as follows:

The use of the compound reduced the amount of galled torn threads encountered after the parts had been subjected to well pressures and eliminated the galling result-

TEST PRESSURES AND SERVICE CONDITIONS

Tubing and Casing	Hydrostatic Test Pressure, psi Mill	Field	Make-up Torque Ft. Lbs.	Bottom Hole Temp. Deg. F.	Pressure psi	Depth Ft.	Type Production
2⅜ in., J-55, EUE	3000	3000[1]	550 — 700	210—255	267—495	To 10,000	Oil[2]
2⅜ in., N-80, EUE	5000			190			Gas distillate
2⅞ in., J-55 & N-80		6500 J-55	2500	198—218	6000—7100		Gas distillate
EUE with Hydril CS jts.	8500—9000 N-80						
2⅞ in., N-80						12,200	Gas distillate
EUE 9% Nickel Hydril			820		2500	From 2900—7900	Gas
CS jts			1300		2500	From 2900—9500	Gas
EUE API Tubing		2000	1700			From 6500—10500	Gas
			2000			4500—7700	
			2000			7700	
		9000	1500		3000	From 4600—9200	Gas
		9000	1000		5600	9000	Gas
		6000	1150		3100	6100	Gas
		9000	1050		5700	6000	Gas
2⅜ in., J-55, EUE			2000			4500	
7 in., 20 lb., J-55, sml.	3000	3000[1]	3200 —3600	120—140	250		Oil
	1200 applied, after cementing shoe, for ten minutes and then released.						
7 in.	3500			190			Gas distillate
7 in., 23 & 29 lb., N-80 LTC and 5½ in., 17 lb., N-80 x-line			5200	198—218	6000—7100		
9⅝ in., 40 lb., J-55 (used)	2500 after cementing					2300	Oil
No description				200—212	3400		Gas distillate
7 in., 23 lb., J-55, STC (Italian)	3500[3]				2200	5000	Gas-dual completion

[1] 11 joints selected at random, after being in storage-tubing 5 mo. and casing 3½ mo. Test pressure maintained for 10 min.
[2] Oil being produced through tubing by hydraulic pumps, gas lift, long stroke pumping, flowing and one string used for water injection.
[3] Prior to running in well, field tested to 3500 psi. to establish leak resistance of mill applied connection. 22 joints failed to hold test pressure and were discarded.

Joint Ventures Are Good Business . . .

Oil men found a long time ago that joint ventures make sense in the crude oil production business. A good team and a fair deal can free more of the attention and energy of an organization to other profitable activities.

In California, General Petroleum is a participant in 32 joint ventures, involving 42 other organizations. In 18 of these deals, General Petroleum is the operator, while in 14 cases, other organizations conduct field operations.

The deals range in size from a tiny gas field of two wells to giant "Block 2-A" in the Wilmington field which produces 10,000 barrels per day.

In such ventures General Petroleum has built an enviable reputation in the industry for fair dealing and trustworthy performance.

GENERAL PETROLEUM CORPORATION

(A Flying Red Horse Company)

Mobilgas
SOCONY-VACUUM

2-501

As General Petroleum's manager of Joint Ventures, Doug Kingman, left, meets frequently with representatives of participating firms. He's shown here discussing operation of Ford Unit at Wilmington, Calif., with Cecil Davis, center, of Ford Motor Co., and L. S. Osborne of Union Pacific Railroad.

ing from original makeup. Where corrosion resistant materials were employed, however, galling was not prevented where stainless steel parts were made up with others of the same material, even though some improvement was noted over compounds used previously. Since then a more suitable compound has been found for use with stainless steels, but there is none better where ordinary low carbon steels are concerned, or where heat-treated steels are connected to soft, or annealed steels.

2. LINE PIPE

The only company reporting use of the thread compound for pipe line service stated:

Fifty pounds of compound used on natural gas gathering lines, where regular line pressures did not exceed 1000 psi.

No appreciable amount of leakage developed from use of thread compound, but conditions of use have not been severe enough to afford any real conclusions.

3. FAVORABLE FINDINGS

1. With tubing no difficulties encountered, compound readily applicable, and adheres well to threads, no galling of threads, quantity used same as for other thread compounds. Compound satisfactory under service conditions encountered.

2. With casing no difficulties encountered in running, and performance satisfactory.

3. Durability of compound may exceed that of others.

4. Found to be an excellent antigall compound, and better sealer than 60 per cent zinc compound. No leakage after more than two years in service.

5. No joint leakage has developed in service.

6. Field tests not completed yet, but all incoming reports indicate compound is a good one.

7. No appreciable leakage at 1,000 psi. natural gas pressure in gathering lines, but service not severe enough to afford real conclusions.

8. When used in running used casing, threads made up all the way in coupling with spinning line before tongs were applied. The ease with which this used pipe was made up was impressive, as normally second-hand casing joints are difficult to make up. The lubricating properties of the API compound enabled the joints to be made up to such an extent that, in our opinion, it enhanced the sealing properties of the joint by providing a metal-to-metal seal in addition to the seal afforded by the thread compound.

9. Have used the compound on seven casing strings, and one tubing string, and have encountered no leaks after its use.

10. It is our opinion that the lubricating and sealing qualities of the thread compound make it superior to any compound we have ever used.

11. In no case was galling of threads observed.

4. UNFAVORABLE FINDINGS

1. Noted that metallic constituents settled out when compound left standing, and with layer of vehicle oil coming to top. However, precipitate easily mixed into solution again.

2. Tests to 5,000 psi. indicate a name brand lubricant as efficient, however, durability of high-pressure compound may exceed that of others.

3. Possibly one slight leak in 7-inch oil string in dually completed well. Pressure exists on surface string, and well is producing distillate from both zones.

5. SUMMARY

In summation, approximately 2,427 casing joints, 3,722 tubing joints and an undisclosed number of joints of line pipe were made up with the high-pressure thread lubricant under varying service conditions, and only one of these joints was reported as leaking.

Laboratory and mill tests confirmed the results of field tests, where the test conditions paralleled service conditions up to a maximum of 17,500 psi. hydrostatic pressure.

COMPARISON CHART

Letter	Type Thread	No. Req'd Per Pump	Malfunction Encountered: Prior to Compound Use (Approx).	Malfunction Encountered: Subsequent to Compound Use
A	Heat Treated 14 Thd.	2	2.0%	0.04%
B	Special Pipe 11½ Thd.	1	14.0%	0.00%
C	Straight, 12 Thd.	2	1.5%	0.00%
D	Special Pipe 11½ Thd.	1	7.0%	0.08%
E	Straight, 14 Thd.	1	2.0%	0.00%
F	Straight, API "F-I" Thd.	*	1.5%	0.00%

* This thread is variable—numerous small threads for balls and seats. The number, of course, will vary with the type and length of pump installed. Percentage figure here is based on galled threads encountered in service work in the field.

AIME Junior Group Pacific Petroleum Chapter Minutes of Meeting—June 3, 1954

Reported by
David K. Hayward

Attendance records were broken again when 165 members and guests of the AIME met at the Turf Club in Rivera to hear Mr. Jan Law and Mr. Charles Wright speak on the subject of "in-situ combustion". During their presentations, Mr. Paul Culligan conducted an actual laboratory "burn" of a typical California oil sand.

Charley Wright, President of Oilwell Research, described "in-situ combustion" as a means of applying heat to a reservoir to reduce the oil viscosity and to strip the sand of its oil. The process is one of first adding heat to the reservoir and then conducting a hot air drive. After initial heating with a bottom hole heater, subsequent heating is obtained from the residual coke beds in the reservoir which are kept aglow by air injection. Liquids recovered may amount to 75-90 percent.

Since the year 1920, when Standard Oil Company of New Jersey applied for the first patent on distilling crude oil underground, developments have led up to successful field tests in the mid-continent by Sinclair and Magnolia. Recently, General Petroleum Corporation announced its proposed test in the South Belridge field of California. Tests have demonstrated that the combustion front can be controlled

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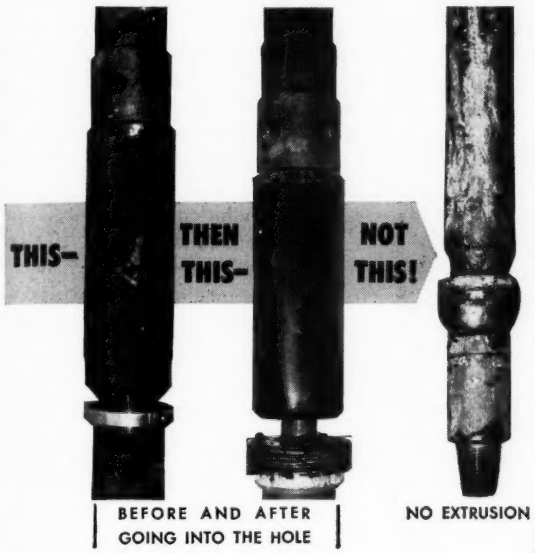
JOHNSTON drill stem testing NEWS

Items of interest to the members of the oil industry

JUNE 1954



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New, Field-Proven BOB TAIL PACKER and HYDRAULIC TESTER Assure More Successful Tests

This Super-Accurate Testing Team gives more reliable drill stem tests than ever before possible—try it, see the difference it makes—faster going in the hole—faster coming out and a big increase in successful, conclusive tests.

NEW BOB TAIL PACKER

. . . proved perfect in hundreds of tests in the field, completely prevents extrusion or flow of the rubber packing! Here's how it works:

1 **Up to 3 Times More Clearance is possible** when going into the hole! The Bob Tail Packer can effectively use a smaller diameter rubber for extra clearance because there's no loss of rubber volume to extrusion!

2 **Pack-Off Is Up To 30% More Effective** since metal petal cups at base of packer **hold** the rubber in the pack-off zone!

3 **Removes Easily From The Packer Seat** after the test because the rubber is supported and contained in the pack-off zone. The assembly is removed intact.

Type B HYDRAULIC TESTER

. . . prevents shock to formation, pipe and instruments and needs less water cushion!

Releases Pressure Slowly below the packer, thereby preventing shock to the test zone! The Type B Hydraulic Tester opens smoothly in stages during 2½ to 4 minutes! It's easy to spud through tight spots that may occur in open or uncased holes!

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FORMATION AND CASING TESTING — JOHNSTON

through (1) injection pressure, (2) oxygen content of the injection stream, (3) rate of injection, (4) backpressures on injection wells, and (5) quantity of combustibles in injection gas. The combustion zone has been maintained for 2 years, and successful means of ignition and re-ignition have been found. There are two schools of thought, however. Sinclair uses a bottom hole gas burner and obtains a complete high temperature front, volatilizing all hydrocarbons. Magnolia uses an electric heater, and elevates the temperature only enough to reduce the viscosity to a desired level.

Problems ahead are: (1) the economics of individual projects, (2) how to increase the petrochemicals, (3) means of increasing the BTU content of produced gases, and (4) how to apply the best method in a particular sand.

Pictured above, left to right: Jan Law, J. P. Garten, Paul Culligan, Charley Wright.

Jan Law, well known petroleum engineering consultant, presented some typical data on the operation of an in-situ combustion field experiment. Besides the procurement and maintenance of equipment, energy must be provided to heat the reservoir and to compress the injected air. It may take about 27000 BTU per cubic foot of oil sand to elevate the temperature to 600°F initially, but from then on the residual coke beds can supply sufficient heat to continue the operation. Compression costs, however, are the bottleneck. For example, consider a 5-acre 5-spot injection pattern. For each foot of vertical sand section in each injection well, it would require ultimately 150 MCF/day of compressed air for injection. A 100 foot sand would require compressor capacity of 15000 MCF/day per injection well. On the other hand, a one-acre 5-spot pattern would require ultimately 70 MCF/day per foot, or 7000 MCF/day for a 100 foot sand. Obviously, then, a balance must be found between well spacing, drilling costs, and sand thickness.

Charles Wright returned to the rostrum to report on the results of his laboratory experiments. He has obtained gravity rises of 1.2 to 3.0° API. Heating of the oil sand partially segregates the components of crude so that less residual matter need be sent to the refinery. Furthermore, certain petrochemicals estimated to be worth $50 per barrel can be obtained from produced wells.

During a question period, Dr. Norris Johnston, President of Petroleum Technologists, asked if by-passing of injected air has been a particular problem. Jan Law answered him by recalling Sinclair's field experiment in which cores were taken following the burn, indicating complete recovery from the entire 51 foot sand section. Since there was permeability variation in the sand, by-passing would have been anticipated in a conventional gas drive or water drive, but by-passing did not reduce recovery in the Sinclair test. At high temperatures, perhaps the process is more of a gas vapor drive than a gas-liquid drive, therefore affording more efficient recovery.

Mr. Paul Culligan, director of the Oilwell Research laboratory, conducted a laboratory burn during the meeting. Members and guests of the AIME were able to see the oil sand prior to burning, the progress of the combustion front moving through the Pyrex tube, the glow of the residual coke left behind, the oil driven from the tube, and the clean, white sand which remained.

You can tell a married woman by the ring on her finger, but of course, you can't tell her much.

The man who invented the davenport should be a happy man—millions have been made on it.

Annual American Association Of Oilwell Drilling Contractors Convention Committee Reports Good Advance Reservations

Room reservations are coming in good volume for the 14th Annual Convention of The American Association of Oilwell Drilling Contractors, which is to be held in Los Angeles October 10, 11, 12 and 13, according to D. H. Graham, President of Dunlap and Graham, who heads the Housing Committee for the Convention. 700 rooms have been promised by the Los Angeles Biltmore Hotel where the sessions will be held and these are being allotted to the first applicants. Attendance of about 1000 registrants is expected, however, and the later applicants will be roomed at neighboring hotels when available Biltmore accommodations are all reserved.

In order to avoid the last minute rush, Mr. Graham urges those who plan to attend the convention to apply at once for reservations. These will be acknowledged immediately following receipt of request.

Reservation requests should be sent to D. H. Graham, 2450 Cerritos, Long Beach, California.

Registrations at the Convention will be taken beginning at 10 A.M. on October 10th at Biltmore Headquarters. Committee meetings and sessions begin at 9:30 A.M. Monday, October 11, and continue through Wednesday afternoon, the 13th.

The Convention will end with a banquet beginning at 7:30 P.M. on Wednesday, the 13th.

Those planning to attend the convention will be given the opportunity this year to register in advance, thereby avoiding the familiar confusion during the registration period. During August registration forms will be mailed to all the Association membership. Upon return of the completed form accompanied by the $20.00 registration fee, the complete program, badge and ticket book for all functions will be mailed to the registrant. Refund will be made upon notification that an advance registrant is unable to attend.

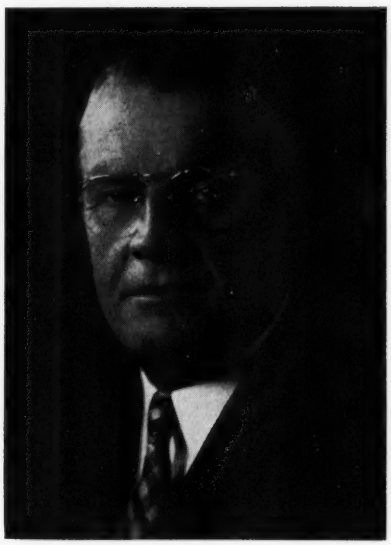
A Tribute To Dale Russell

By R. H. Sneddon

DALE RUSSELL is gone!

What the cause of his death was we are not too much concerned about, but we can say with profound earnestness that it came altogether too soon, for Dale was one of the grandest guys that ever lived, and this topsy-turvy old world can ill afford to lose men of his kind. The history of his business rise is also unimportant at the moment but it is quite worth mentioning that even as the world measures success he was a success. At the time of his death he was Vice President of Republic Supply Company, one of the West's most progressive equipment manufacturing and distributing organizations and he had established himself thoroughly as a man of high executive caliber.

But those of us who knew Dale intimately and enjoyed the rare privilege of his friendship will long cherish his memory, not so much for his business achievements, as for his sheer human genuineness and simplicity. There wasn't a mean corpuscle in his makeup and there wasn't a soul who really knew him who didn't love him. We have often referred to Dale in this magazine as the Will Rogers of the petroleum industry, and it was an apt simile for he not only had a wonderful sense of humor—humor strictly of the warming kind that never hurts—but he had the same homey philosophy and down-to-earth honesty as his famed prototype.



Dale Russell

In all the years we knew Dale, we never heard him rant against ill fortune although he had his share of it. His only son, Robert, survived the hazard of flying a combat plane in World War II only to be killed at Kwajalein on his way home. He himself was the victim of a sudden and severe illness about two years ago that might easily have ruined a less evenly balanced disposition. But much as he must have been affected by these unfortunate happenings, he quickly recovered his equanimity and customary good nature and had soon resumed his place in the scheme of things.

Dale was a long time member and a past Big Shot of the Nineteeners where his quiet demeanor, his entertaining views on the question of the moment, and his total friendliness made him one of the most likable and best liked members of the group. He was similarly admired by his associates on the Wildcat Committee of Western Oil & Gas Association of which he was also a pioneer member. These are exclusive organizations, but Dale was the sort of chap you would expect to be asked to join exclusive societies because he provided the sort of companionship that we all seek. He was the kind of a person that most of us try, not too successfully, to be; but are nonetheless so much the better for trying.

During some forty years of application in the petroleum equipment industry, Dale made a host of friends, all of whom are now feeling a distinct sense of personal loss. To Mrs. Russell and the immediate family, whose loss is infinitely greater, we tender our sincerest sympathy and we can only hope that their grief will to some extent be softened by the knowledge that although Dale is gone his kindly influence has left an effect that will remain a lasting testimony to his goodness.

Personalities IN THE NEWS

Ball Named Vice President Of Johnston Testers

Louis C. Ball has been named Vice President and Assistant to the President of Johnston Testers, Inc., it was announced recently by M. O. Johnston, president of the firm.

Louis C. Ball

Mr. Ball, 35, joined the firm June 1. He was formerly Regional Manager of Rheem Manufacturing Company, whose Southern regional office is located in Houston. Before joining Rheem, Mr. Ball was for six years associated with the Henry J. Kaiser organization of Oakland, California. While with Kaiser, he participated in the exploration for aluminum ore in South America and the Caribbean area. He also worked with the administrative offices of Kaiser Gypsum Company, heading investigations for the building materials firm. This company, a large supplier for two West Coast plants, used raw material from Mexico in making gypsum wallboard, plaster, and lath.

After being graduated from the University of Nebraska in 1940 with a B.S. degree in geology, Mr. Ball's first job was with the Alumimum Company of America. During his four years with ALCOA, he did geological work in the bauxite mines of Arkansas.

A native of Omaha, Nebraska, Mr. Ball was married in 1940 to the former Miss Louise Benson, also of Nebraska. They reside at 3854 Chevy Chase Drive, Houston, and have three children, Louis C. Ball, III, age 11; Margaret Dickey, 9; and Victoria Louise, 5. Mr. Ball is a member of the Episcopal Church of St. John the Divine, the American Institute of Mining and Metallurgical Engineers, and the Houston Engineers Club.

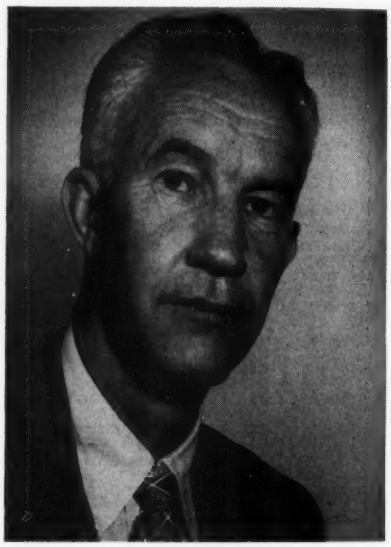
He served in the U. S. Navy from September, 1944 to May 1946, as an officer on an LCI. He was engaged in the Okinawa Campaign.

Johnston Testers, Inc., is the firm that originated drill stem testing, and lists among its accomplishments the world's deepest drill stem test. Over the years, Johnston has developed many new testing methods, one of the most recently perfected tool being the Selective Zone Tester. The Johnston firm is located at 9820 South Main in Houston, Texas.

Safe driver awards have been presented 26 employees of Union Oil Company in the Bakersfield district. The laurels were given drivers who had operated company cars for a minimum of three years without an accident of any kind. Recipients included, C. M. Pounds, G. E. Kinser, F. L. Lee, D. C. McEwen, J. A. Mullins, A. M. Osborn, E. E. Elk, W. D. Canning, A. B. Jones, W. J. Flynn, L. W. Gadberry and R. A. Hawkins. Also W. E. Frank, W. V. Rogers, O. Holzhausen, R. J. Jansen, C. L. Morton, W. J. Peeren, T. E. Record, C. B. Reynolds, D. Colville, C. A. Goughnour, F. M. Schlegel, L. H. Rasmussen, F. J. Wilson and C. R. Wilson.

Hill Succeeds Eckis At Richfield

Mason L. Hill, assistant chief geologist for Richfield Oil Corporation since 1950, has been appointed chief geologist, succeeding Rollin Eckis, who was recently named manager of Exploration.



Mason L. Hill

Mr. Hill has been associated with Richfield since 1937, when he joined the company as district geologist, Coast District, in Ventura. He became assistant division geologist for the Northern Division with headquarters in Bakersfield in 1939 and advanced to division geologist in 1946. During his association with Richfield, his work has contributed materially to the discovery of important new reserves in the Cuyama and San Joaquin valleys.

A native of Pomona, California, Hill was graduated from Pomona College in 1926, after which he pursued graduate studies in geology at the University of California, Claremont College and the University of Wisconsin.

He is a member of the American Association of Petroleum Geologists,

ONE IS YOURS

Axelson engineers sucker rods for *specific* well conditions. Get the facts on heavy duty rods 77 and 79. They insure greater corrosion resistance, permit higher loading and give a high impact resistance and endurance limit. These, together with rods 59 and 60, satisfy every pumping condition. Axelson has the *right* rod for you.

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OFFICES: NEW YORK 7, NEW YORK; TULSA 1, OKLAHOMA; BUENOS AIRES, ARGENTINA.
DISTRIBUTORS: JONES & LAUGHLIN STEEL CORP., SUPPLY DIVISION; GREAT NORTHERN TOOL & SUPPLY COMPANY; JONES & LAUGHLIN STEEL SALES CO., LTD., SUPPLY DIVISION, EDMONTON, ALBERTA, CANADA; DOMINION OILFIELDS SUPPLY CO., LTD., CALGARY, ALBERTA, CANADA; ADRIAN BOLLAND & CIA., S.R.L., BUENOS AIRES, ARGENTINA, S.A.; GROSS EQUIPMENT S.A., LIMA, PERU, S.A.; INDUSTRIAL AGENCIES, LTD., SAN FERNANDO, TRINIDAD, B.W.I.; MAQUIP (COMERCIAL DE MARQUINAS E EQUIPAMENTOS) S.A., RIO DE JANEIRO, BRAZIL, S.A.; SERVICIOS INDUSTRIALES, C.A., BARCELONA, VENEZUELA, S.A.; SERVICIOS INDUSTRIALES C.A., MARACAIBO, VENEZUELA, S.A.; WELLS FARGO & CO. EXPRESS, S.A., MEXICO, D.F.

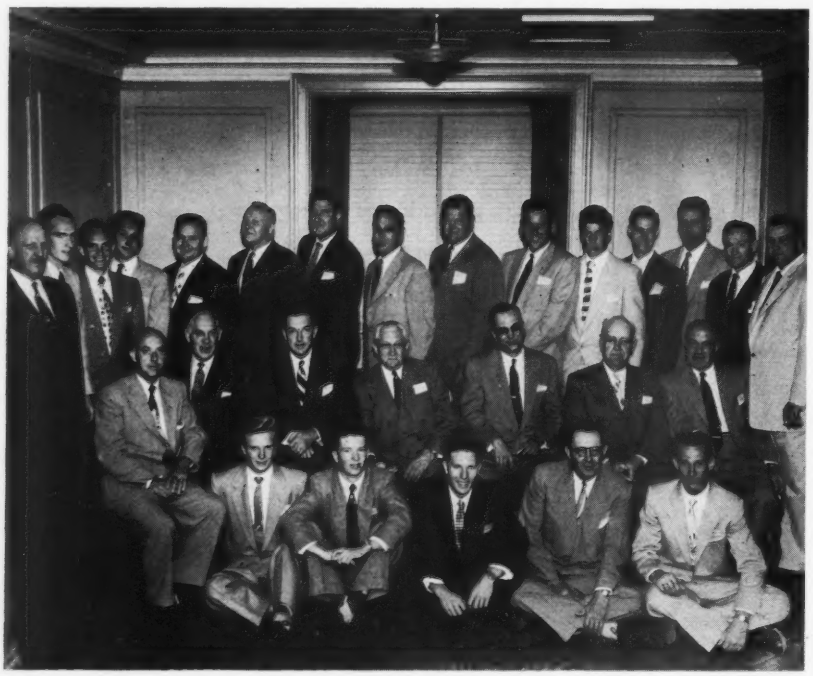
a Fellow of the Geological Society of America and a member of the Petroleum Club of Los Angeles. He has been active in professional affairs, having contributed a number of scientific articles to geologic literature and is presently the president of the Cordilleran Section, Geological Society America.

Mr. and Mrs. Hill and five sons reside in Whittier, California.

You would never hear it from Bob Lytle, but the Los Angeles oil man was one of the first aviators to fly for the United States in World War I. Lytle, who has turned up oil in California and elsewhere where others have failed, was on duty with a Marine Corp flying group. Those acquainted with his service tell of combats won against great odds and his great contribution to the country's earliest saga of wartime flying.

Wilson B. Emery, Ohio Oil's vice president and production manager, is now in his 36th year with the company. It was 35 years ago last May when he joined Ohio at Casper, Wyoming as a geologist in what was then known as the Rocky Mountain division. Before association with Ohio, Emery had been with the U. S. Geological Survey, doing geologic field work on Federal lands in Utah, Wyoming, Colorado, Oklahoma and Montana.

F. J. Fontana, Richfield Oil Corporation, was elected secretary-treasurer, and M. A. Wise, General Petroleum Corporation, to the executive committee, at the recent installation of new 1954-1955 officers of the Southern California section, the American Society of Mechanical Engineers.



Fathers and sons who attended the Fathers and Sons Meeting of the Los Angeles Chapter of Nomads on June 9, 1954. Left to right: (standing) Nomad C. F. Van Loozen of Ideco; Harry Hester III and Richard Hester, sons of Harry Hester; John Flanagan Jr., son of John Flanagan; Jim Doyle, son of Babe Doyle; Nomad Babe Doyle of Hydril Company; Henry F. Pohlmann, son-in-law of Leo Cypher; Nomad Ken Ross, son of Hans Ross, of Baash-Ross Tool Company; Don Doyle, son of Babe Doyle; Nomad Earl Tavan of Ken Corporation; Gary Tavan, his son; David Winder, son of Dick Winder; Frank Atkins, son of Pop Atkins; Nomad Bill Sargent of Sargent Engineering Corporation; Nomad Ed Van Loozen, son of C. E. Van Loozen of Vansco; (middle row) Nomad Harry Hester of McCullough Tool Company; Nomad Leo Cypher of Baash-Ross Tool Company; Nomad John Flanagan of Johnston Testers, Incorporated; Nomad Hans Ross of Baash-Ross Tool Company; Nomad John Hagn of Chiksan Company; Nomad Pop Atkins of Emsco Mfg. Company; Nomad Dick Winder of Chiksan Company; (bottom row) Mike Sargent and Jack Sargent, sons of Bill Sargent; Dale Krenzel, son-in-law of Harry Morehouse; Nomad Harry Morehouse of Wagner-Morehouse, Incorporated; George Hagn son of John Hagn.

Warren McKenna Joins Hill & Christopher Agency

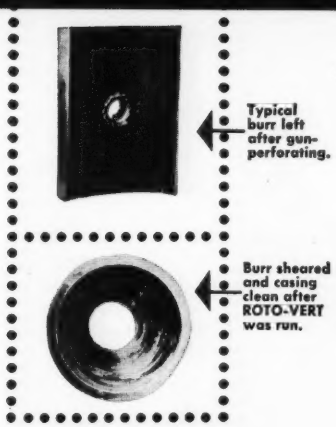
Formerly advertising and sales manager for several Los Angeles industrial firms, Warren P. McKenna recently joined Hill & Christopher advertising agency in Los Angeles. McKenna majored in electrical engineering at M.I.T., studied chemical engineering at Brown University and advertising and marketing at Pace Institute.

Warren P. McKenna

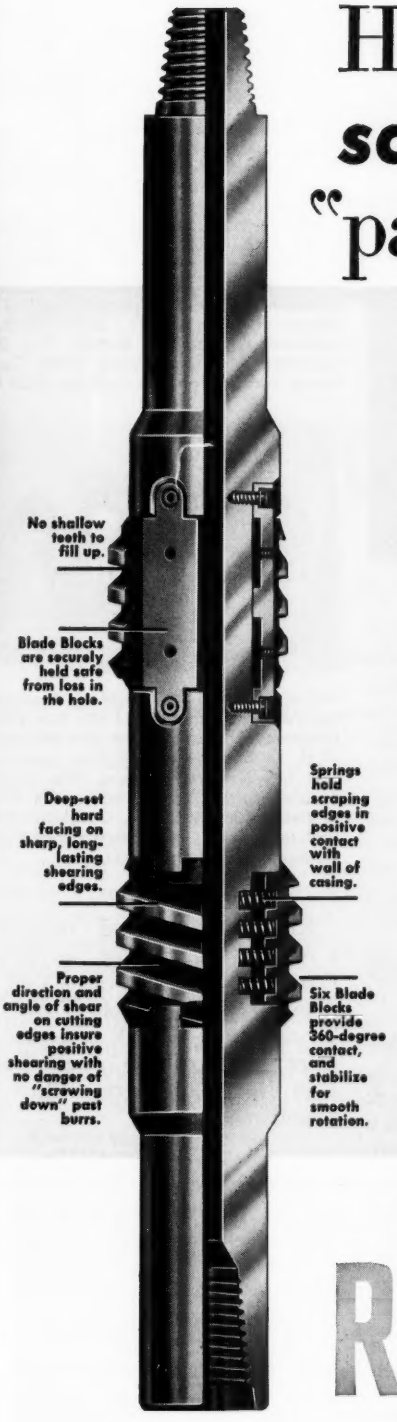
During the past fifteen years, McKenna has had advertising and sales experience in the petroleum, aircraft, hydraulics, chemical processing, livestock, grain and mining industries. He will serve on the plans board and as account executive for several Hill & Christopher clients.

Irving Dumm, secretary-treasurer of Dumm Bros. Petroleum Corporation at Long Beach, has returned from Chicago and a visit to other Eastern points. In addition to his production interests, Dumm is an official of Pacific Valves, Inc., founded by the famed Dumm brothers.

W. W. Alving, W. R. Johnson and W. R. Winton will represent the Kern County petroleum industry at the forthcoming California State Fair at Sacramento. The Kern County exhibit will emphasize its two main resources—oil and agriculture.



Here's why
SCRAPING YOUR CASING "pays off"


No shallow teeth to fill up.
Blade Blocks are securely held safe from loss in the hole.
Deep-set hard facing on sharp, long-lasting shearing edges.
Springs hold scraping edges in positive contact with wall of casing.
Proper direction and angle of shear on cutting edges insure positive shearing with no danger of "screwing down" past burrs.
Six Blade Blocks provide 360-degree contact, and stabilize for smooth rotation.

Unless the inside of your casing—the vital "working surface"—is clean and smooth, there is always a possibility of trouble in future operations. Burrs from gun-shot perforations, hardened cement or mud, and even mill scale are all dangerous when the time comes to run testers or swabs, or to set retainers or packers of any description.

The Baker Model "C" ROTO-VERT Casing Scraper removes undesirable obstructions from the inside of the casing, leaving it clean and smooth. Burrs or imbedded bullets are sheared away; cement, mud and scale are scraped away, so that any down-hole work can be safely done at once, or during the years to come.

SCRAPE WHILE DRILLING OUT

The ideal time to use the ROTO-VERT Casing Scraper is during the drilling out of cement, at which time it is run as a "follow-up" behind the bit. Thus in a single run you can also remove all hardened cement, mud, burrs and scale which might later damage swabs or testers, and cause packers or retainers to set prematurely—or never set at all.

EASY TO RUN—LOW-COST RENTAL

The Baker ROTO-VERT Casing Scraper is simple to run, and will effectively clean the inside of the casing *when either rotated or reciprocated* (vertical action). No service man is required, and the low rental cost is paid for many times over by freedom from future damage to bailers, swab rubbers and packers, as well as by the elimination of future delays and re-running expense.

BAKER OIL TOOLS, INC.
HOUSTON • LOS ANGELES • NEW YORK
Call Baker for consultation and service . . .

BAKER
ROTOVERT
CASING SCRAPER
PRODUCT NO. 620-C

P·E·S·A PETROLEUM EQUIPMENT SUPPLIERS ASSOCIATION
PARTNERS IN PETROLEUM PROGRESS

F. E. Fairfield, President, and R. J. Osburn, Vice-President and General Manager of The Oil Tool Corporation, look over bonus checks given to employees.

Oil Tool Corporation Distributes Profits Bonus To Employees

Following his established policy of more than a decade, F. E. Fairfield, President of The Oil Tool Corporation, at the end of the Corporation's fiscal year on April 30th, once again presented to The Oil Tool Corporation employees bonus checks which gave each employee a proportionate share of the total sum, which represented 50% of the Oil Tool Corporation's net profits for the 1953-1954 fiscal year. Employees who received the bonus checks were the following:

Ray J. Osburn—Vice-President and General Manager, Edna E. Sellers, Secretary, W. C. Anderson, Wm. Anderson, A. B. Austin, R. D. Clinard, T. W. Cooke, H. M. Harshfield, O. A. Johnson, D. W. Otto, W. B. Pridy, C. M. Jasper, Julia Chandler, L. V. Osburn.

Harvey W. Parmelee has been named vice president in charge of operations of Wilmington Gasoline Company, purchased the other month by Chicago North Shore System, Inc. The plant on Terminal Island is processing some 25,000,000 cubic feet of gas a day and manufacturing more than 100,000 gallons daily of natural gasoline and LPG products.

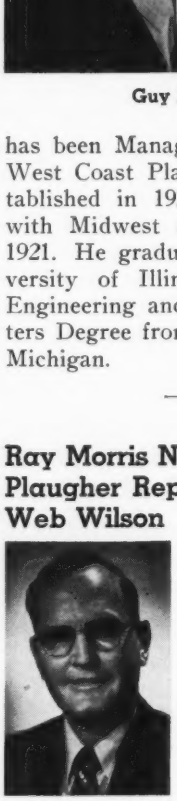
Morrill Elected Vice President of Midwest Piping

At a meeting of the Board of Directors of the Midwest Piping Company, Inc. in St. Louis, Guy L. Morrill was elected Vice President. He will continue to make his headquarters in Los Angeles where he

Guy L. Morrell

has been Manager of the Midwest West Coast Plant since it was established in 1927. Morrill started with Midwest as an estimator in 1921. He graduated from the University of Illinois in Mechanical Engineering and received his Masters Degree from the University of Michigan.

Ray Morris Now With Plaugher Representing Web Wilson



The latest "Associate" with E. W. Plaugher & Associates, is Ray Morris, who will cover the Los Angeles Basin, specializing on Web Wilson Oil Tools, including HYDRA HOOKS and that new "Balanced" Power Slip.

Morris will headquarter at the Plaugher Office, at 150 West 154th street, Gardena; telephone MEnlo 4-4923.

Jack Human, Associated Piping and Supply Company, being presented a trophy for outstanding services during the past year as President of the Petroleum Equipment Salesmen's Association of Los Angeles. Presenting the trophy is H. J. Schlarb of Chiksan Company, who was installed as President of the P.E.S.A. for 1954. (Left to right) H. J. Schlarb, Chiksan Company; C. S. Perkins, Manager of Purchases of Union Oil Co.; Jack Human, Associated Piping and Supply Co.; Dolph Greenwood of Greenwood Valve Co., Director and first president of the P.E.S.A.

Being inducted as regular members at the June 9th meeting of the Los Angeles Chapter of Nomads are Art Marshall of of H. C. Smith Oil Tool Co., (center left) and Lee Nave of Axelson Mfg. Company (center right). To the left is Ox Morgan of Falcon Products, Inc., Sergeant-at-Arms and to the right is Joe Schlarb of Chiksan Company, Vice President.

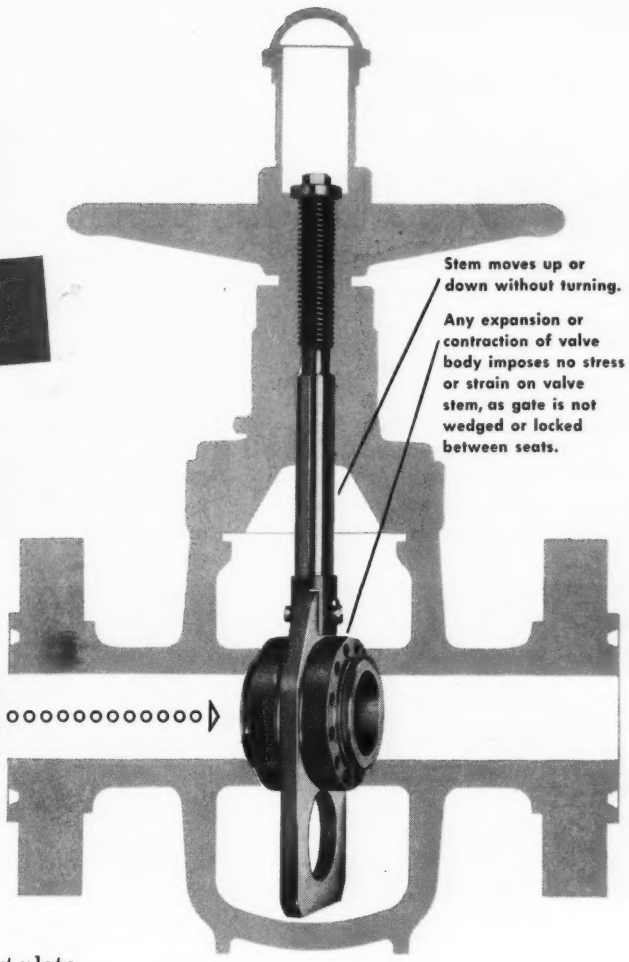
Kerr-McGee Drilling Company has a contract rig working on Shell Oil Company's Eagle Springs Unit No. 3 test well on Section 27-8n-57e in Nevada. The derrick is around five miles south of the Eagle Springs Unit No. 1 discovery well in Nye County.

Reports from Pacific Northwest oil circles intimated that the A. M. Janssen Drilling Company of Portland, Oregon, may launch exploration in the near future on land in the Nashville area, about 20 miles northwest of Corvallis. The area was the scene back in 1932 of at least two shallow tests. The wells were credited with gas and oil shows in going to 450 and 650 feet, respectively.

FULL FLOATING

SELF ALIGNING

FREE SLIDING

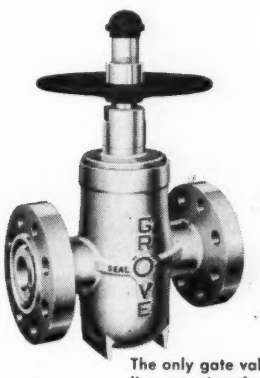

Stem moves up or down without turning.
Any expansion or contraction of valve body imposes no stress or strain on valve stem, as gate is not wedged or locked between seats.

GATE ACTION

avoids tensile, torsional or compressive strains and stresses

Open, closed or throttling, the parallel-sided port-plate and seat assemblies of Grove Seal-"O"-Ring Gate Valves are free-floating, permitting perfect self-alignment. This not only results in lowest possible operating torque, but also compensates for distorting temperature changes. No tortional, compressive or tensile strains or stresses are imposed on the stem, which actuates the gate through non-rigid coupling. The non-turning stem moves freely up or down with minimum friction. With stem, gate, or seats, there's no wedging, galling or sticking—and no possible chance of "freezing up." Positive dead-tight seal is established with pressure on either side of gate. Full-opening port permits unrestricted passage of scrapers. Impartial field test reports of Grove Seal-"O"-Ring Gate Valves on lines of leading companies will be supplied on request. Get full details today.

Available through leading oil field supply houses



The only gate valve you can check in the line any time for dead-tight seal. Free gate movement can be checked without breaking the seal.

S-403

GROVE SEAL-"O"-RING Gate Valves

GROVE REGULATOR COMPANY • 65th & Hollis Sts., Oakland 8, California

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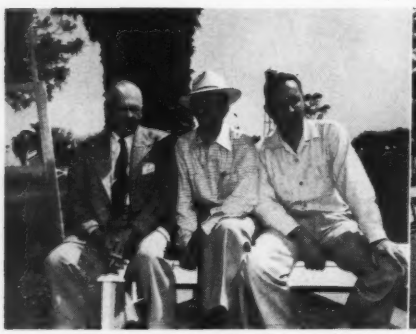
THE GRAPEVINE

By RICHARD SNEDDON

The Gas Gang Convenes

The annual summer High Jinks of the California Natural Gasoline Association took place at Rio Hondo on Saturday, June 5, and was, as usual, productive of much interesting episode and event. Almost a thousand members and friends journeyed to Bill Bryant's attractive layout to engage in a diversity of contesting and jousting that resulted in far more amusement than accuracy. The big item on the program was, of course, the golf tournament, and there is at least one reason why the divot-hoisting practice is more perplexing at Rio Hondo than at any other club. That is the pres-



C. F. Johnson, Les Crocker and Bob Allen.

R. C. Gentry, H. R. Harvey, C. J. Heinrich and A. J. Sullivan.

Ben Holt, George C. McLaren, Bill Kirk and Fred Hartley.

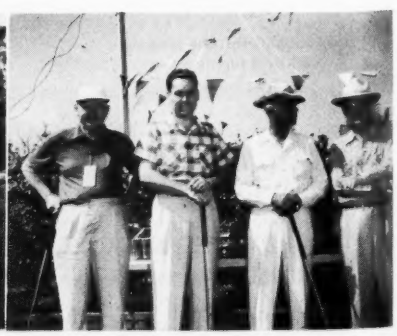
Jay Lemoine, Harold Dresser and Bill Lacy.

Bob Few, Clay Thompson, Ralph Thompson, Pete Maxfield and John Ohman.

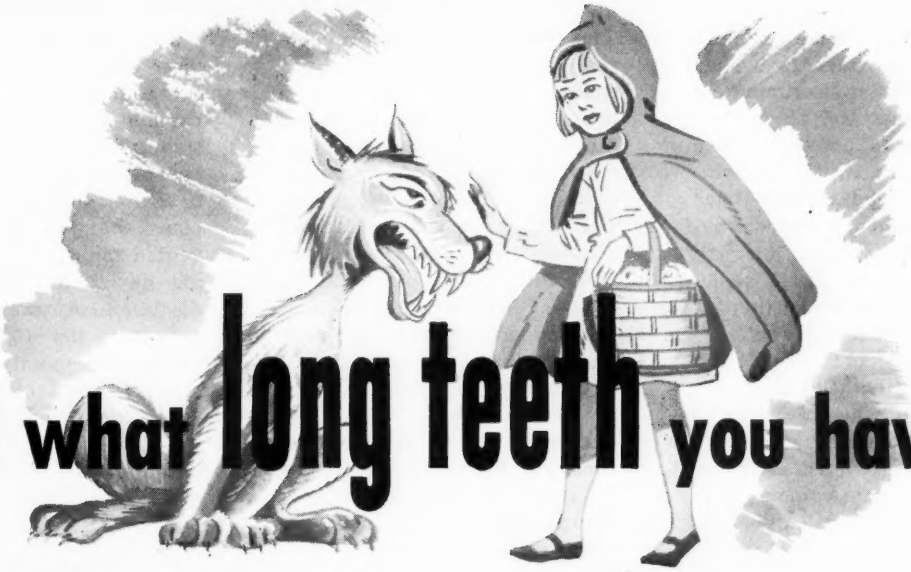
Harry Todesca, Frank Farwell, Lyman Calkins and Jack McKay.

W. E. Larson, Roy Hershberger, Jack Doyle and E. H. Channell.

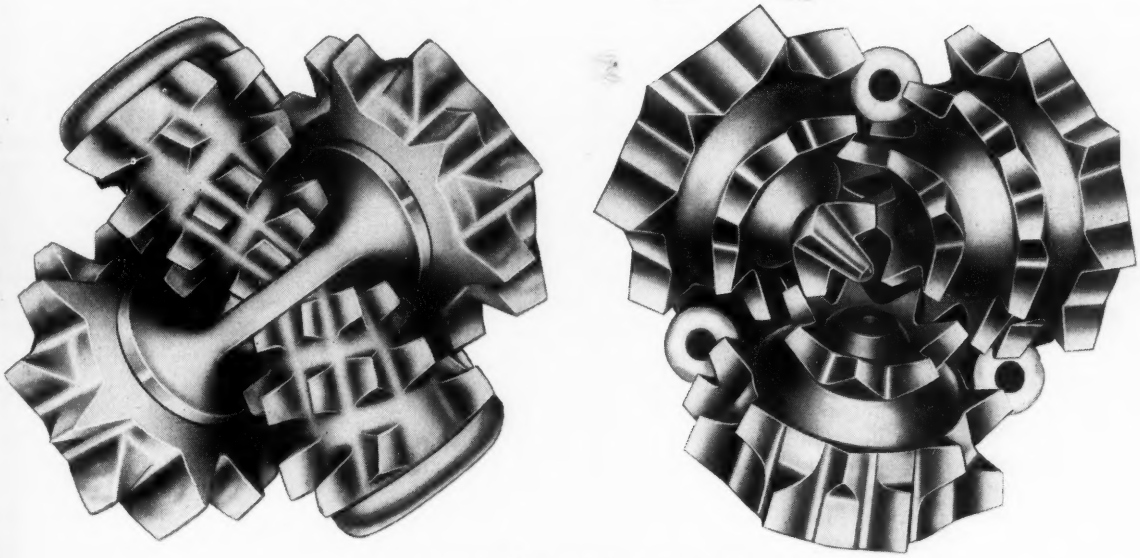
Ray Ellis, Henry Havins, Al Barnes and Monte Temple.



C. H. Tuttle, Glen Gill, Hal Leedy and Maurie Hubbell.



My! what long teeth you have!



-every bit as good as the best

That's to give you the kind of digging you've got a right to expect in top formations—more hole per hour and longer time on bottom. These long, rugged teeth really eat *fast* through top shales and such formations as chalk, red beds, anhydrite, unconsolidated sands and the medium-soft limes. And these H. C. Smith long-tooth bits also do well in the harder streaks and stringers with the necessary weight and speed. Bits can be supplied with either regular or jet-action nozzles.

H C Smith OIL TOOL CO.

—Pioneers in Developing the Long-Tooth Bit!

Branches in All Principal Oil Centers in the United States and Canada

California Branches: AVENAL • BAKERSFIELD • COMPTON • CUYAMA • NEWHALL • RIO VISTA • SANTA MARIA • VENTURA

GENERAL OFFICES, EXPORT OFFICES AND PLANT • COMPTON, CALIF.

ence over the course of innumerable fruit trees that shed their harvest indiscriminately and embarrass the players no end. There is on record one tournament in which the winner was obliged to turn back his trophy when it was discovered that he had left his ball away back in the rough somewhere and had finished the last four holes with a crab apple.

Golfing Under Difficulties

And that isn't the only thing that disturbs the equanimity of the golfer at C.N.G.A. tournaments. In other years we have seen some very proficient performers lash themselves into a frenzy in their efforts to drive the ball from the opening tee off an upright piece of rubber hose a foot high. This year a new type of disturbance was introduced in the form of helium-filled balloons that turned the fairway into something more resembling the midway at the circus. The balloons were pretty well expanded and, as the day grew warmer, they exploded with exasperating suddenness disconcerting the golfers who, as a rule, begin playing in an advanced state of disconcertment, anyway. Despite these interferences, however, Willard McCay of Barnes and Delaney Company, Long Beach, came in with a 70 gross, the day's best performance, capturing the Anchor Petroleum Company perpetual trophy, and thus having his name entered in golfdom's hall of fame with such noted people as Ben Hogan, Gene Sarazen, and Frick Gibbs. Also in the golf money was Harold Meredith of Lomita Gasoline Company, who walked off with the Tom Taggart Memorial Trophy, a memento that is awarded to the best Chevronite in the field. Don't know what Harold's score was, but we understand it was considerably smaller than his social security number.

Shucks! No Baseball

By some nasty quirk of fate, the yearly baseball fracas between the Peddlers and the High Octane johnnies, that is, supply men and gasoline plant technicians, didn't materialize, and the entire donnybrook has been thrown over into 1955. This thing is usually provocative of more wild swinging than an unlocked barn door in a hurricane, and also promotes much impromptu sideline wisecracking that in turn urges the performers to amazing gymnastics. We have witnessed these contests over many years, and have interviewed many of the victims on their hospital cots the day after, but so far have been unable to develop any satisfactory explanation of their fantastic exertions. The scores frequently get up into three figures, and the record of a game is about as complicated as a Form 1040. The process, indeed, is so devious that it is even difficult to tell when the game starts or ends, and nobody has yet been able to say with any degree of certainty after the match is over which side has won.

More About Golf

Getting back to the golf binge for a minute, Kenny Kingman, the Union Oil Company production chief, won some kind of award for putting over an obstacle course that looked like one of Ed Ragatz' bubble trays. Of all the obstacles that were placed in the way of the players in this contest, the most formidable one was the way the players played, if you know what we mean. There was also a hole-in-one contest, and while no one actually achieved this high honor, Myron Jones of C.C.M.O. up in Ventura, was awarded first prize for coming closest to the hole. He came within six inches of going down with his first shot, but our reporter failed to state how many strokes he took to actually get the ball in the hole.

The Inexhaustible Julian

The most astounding performance of the day was put on by Julian Campbell, who arrived on the scene looking practically naked, with no gadgets in his pockets. Julian played eighteen holes of golf without ever unbiting his cigar, then engaged in a strenuous game of volley ball, and finally took on all comers on the horseshoe pitch. Hardly ruffled by all these exercises, he attended the subsequent events, including the dinner and floor show, and stayed around so long that the charwoman dusted him off the next morning. We have a suspicion that Julian must have invented some sort of an energizing device that he hasn't yet disclosed. Anyway, if he ever puts it on the market, we shall be glad to qualify as his first customer. Meantime, our congratulations to Julian on his capacity to keep up a pace that only Determine and Imbros can ever hope to match.

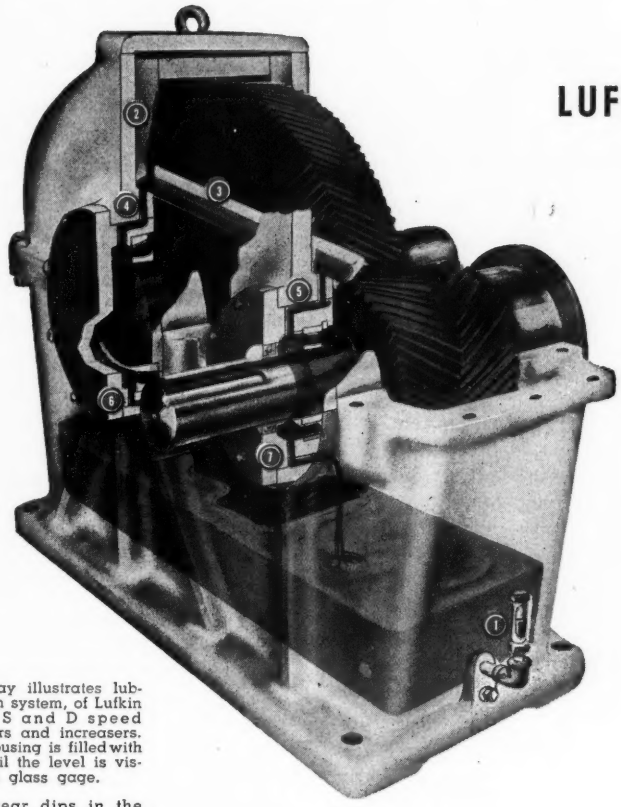
Of Ping-Pong and Stuff

Other forms of diversion that kept many of the guests pleasantly occupied during the afternoon were ping-pong and darts. Ping-pong is a game that is normally played under a large table with two butter spades and a small celluloid sphere. Darts is mostly played in English pubs to the accompaniment of copious beer drinking, but can be quite interesting with other types of liquid refreshment. Speaking of refreshment, a barbecue dinner was served out on the greensward while the traditional Tyrolean band stimulated with frequent outbursts of song. These song spasms, needless to say, were much more boisterous than beautiful, but they helped greatly to the general enjoyment of a most enjoyable day.

Big Doings Under the Big Top

In the evening under the big top Fred Carter of Jones and Carter, the entertainment chairman, presented the awards for the various accomplishments of the day, helped dispose of the door prizes, and generally functioned as master of ceremonies. The entertainment, again provided by Walter Trask, was of high caliber excepting that the hypnotist who tried to put Fred Hartley under his spell found it impossible because Fred was already hypnotized. Anyway, the latter was made the recipient of a Junior Sheriff's Badge, which he will have to wear himself since he has no children. By way of a final round-

gears with Guts



Cutaway illustrates lubrication system, of Lufkin Type S and D speed reducers and increasers. The housing is filled with oil until the level is visible in glass gage.

The gear dips in the bath of oil, lubricating the gear teeth. The film of oil which adheres to the side of the gear rim is deflected by wiper **2** into oil trough **3** which is cast integral with the cover. Oil flows by gravity from the trough through oil passages **4** and **5** into all bearings and returns to the sump by oil-return passages **6** and **7**.

LUFKIN GEARS FOR INDUSTRY

You buy more than Gears when you order from Lufkin. Yes, Lufkin Gears are the product of an organization with a reputation for quality equipment since 1900. Lufkin Gear assemblies are serving all types of industry from Paper Mills to Pipe-Lines, and Lufkin Gears are a part of every one of the famous Lufkin Pumping Units . . . Pumping Units that have won the respect and confidence of oil Producers the world over . . . A quarter of a century of performance under rugged conditions qualifies Lufkin as producers of Gears With Guts.

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SPEED REDUCING
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THE HISTORY OF A HISTORIAN

Paul Andrews, chief production engineer of Signal Oil & Gas Company, was born in Henrietta, a small town near Wichita Falls in Texas, but at an early age he trekked out to Salt Lake City with his parents and in no time at all had become a confirmed westerner. He received his primary education at Salt Lake schools and after graduating from high school entered the University of Utah where he studied mining engineering. Meantime he had leased and worked a tract at Eureka and had become pretty adept at crimping caps with his teeth, resisting the occasional jolt of elevating aqua, and otherwise comporting himself after the fashion of a hard rock miner.

In due course Paul fell a victim of the California urge and via San Francisco he eventually made his way to Long Beach where he immediately began work with Standard Gasoline Corporation as a natural gas engineer while he supplemented his experience with a study of petroleum engineering at University of Southern California. He left Standard and for a time was with Italo Petroleum Company but in 1930 he attached himself to Signal Oil & Gas Company as production engineer and has been a considerable member of that august organization ever since.

He was active in the pioneer gas-lift program that first utilized Signal Hill gas to increase production from the wells in the area. In 1935 he was moved to Elwood and there made an intensive study for his

company of bottom hole conditions and the various agencies and influences that affect ultimate oil yield. Out of this project came instruments and techniques for the adequate measurement and control of many such agencies and influences. Out of it also was born Signal's petroleum production department and Paul Andrew's elevation to the post of chief petroleum engineer.

Paul is a soft-voiced, quiet-mannered chap who has, nonetheless a good sense of humor and a rather extensive repertoire of appropriate yarns for any and all occasions. He is nobody's pigeon in any species of speculative enterprise and is particularly dangerous in dominoes and poker. Indeed, he is quite generally conceded by the domino experts to be one of the best hand pickers in the west and one of the most difficult persons to drive to the boneyard. He is thoroughly familiar with the lingo of the game and knows exactly when it should be termed science and when it should be relegated to the category of abysmal luck.

He has long been active in such industry organizations as API and AIME of which latter he is a past chairman of the Pacific Petroleum Chapter, and as historian of the Petroleum Production Pioneers over the past few years he has done an outstanding job of selecting significant sites on which to install monuments for the edification of future Californians, and of arranging the details of installation and dedication. Paul is a good master-of-ceremonies and after dinner speaker. He has the capacity to intersperse his offerings with liberal sprinklings of wit and so adds distinctly to their entertainment value. He can be deadly serious, however, when the occasion demands, and there is no question that he is in all respects one of our better people.

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up on this altogether pleasant outing, we might mention that among those present were Frick Gibbs, the former Union Oil Company golf and tennis expert; Lennie Leonard, John Herron, and Jack Doyle, the Shell Company's natural gas and gasoline higher-ups; Bob Tulin, the perennially young consultant; Bill Rifenberick of Industrial Engineers and one of Glendale's favorite citizens; Val Cassaday, the big, handsome Lomita Gasoline chap; Jack Delaney, the old reliable from the Reliance Regulator Company; Clarence Johnson, the Armco Steel Corporation magnate; Lou Rowson, purveyor of Sky Chief gasoline with petrox; Marion Arnold and Larry Windle, a pair of high class Richfield oilers; and Harold Dresser, the Marley chap who hasn't missed a CNGA whingding since the War of Independence. There were scads of others, of course, who should also be mentioned, but leave us just say for them that they all had a good time, thanks to the efficient arranging of Ed Millett, who is very definitely one of the industry's better arrangers.

Arabian Nights Entertainment

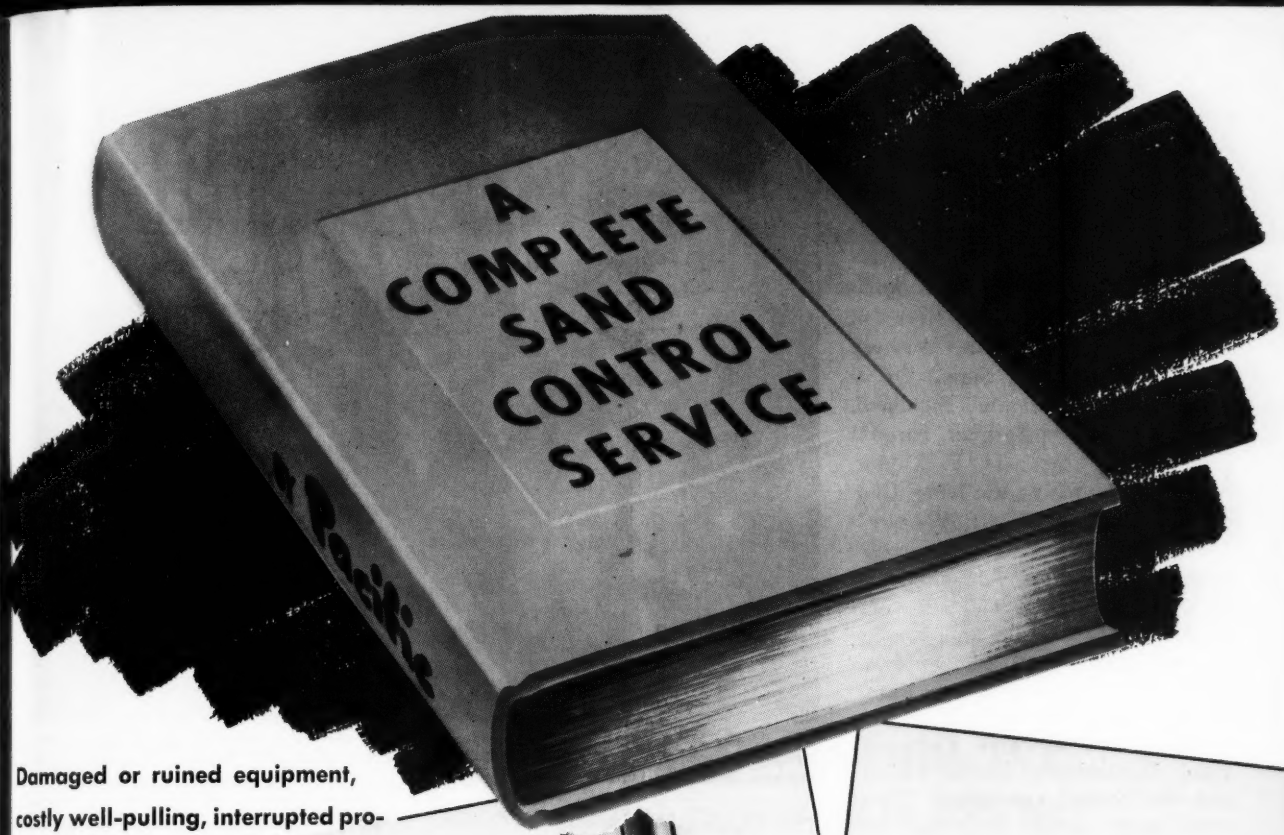
The Petroleum Club staged an unusual party the other evening that was attended by 150 of the oil elite of this area, and turned out to be a very wonderful affair. In charge of arrangements were Jim Kelley and Ed Stout, and they came up with a night of magic, officially termed, "Arabian Nights entertainment," that was highly entertaining and amusing. Following the cocktail hour, Doc Bowles, the Continental wizard, opened the show with a series of rope tricks and other sleight-of-hand stunts that had everyone thoroughly baffled, including Dave Day, the Petroleum Club prexy, who stayed close in all evening but didn't discover a thing. Doc was followed by Dave Rickard of Du Pont's petroleum chemicals division, who put on a very educational act entitled, "The Magic Barrel." This unique display gave those present an eye-opening disclosure of the multitudinous wares that are manufactured from petroleum and the others that are dependent on some petroleum product for their completion. David did a nice job under difficult circumstances, and we personally add our congratulations to the many he received for a most illuminating presentation.

The Great Zamlock Performs

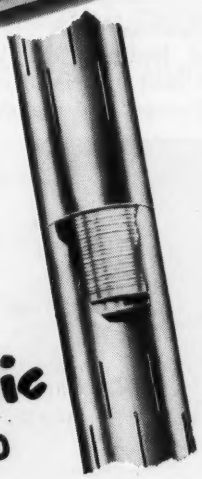
Throughout the evening, Carl Zamlock, the master card manipulator from Signal Oil and Gas Company, gave impromptu exhibitions from his endless repertoire of card tricks. Carl is one of the smoothest performers we have ever seen either off or on the stage, his particular strength lying in the fact that he is at his best when he is completely surrounded by the "I know how it's done" sort of audience. As a matter of fact, it is our impression that he would be a mighty entertaining individual without a deck of cards; but when he starts to ruffle the pasteboards, he is entertainment at its best.

Present for the Festivities

Among those who attended this one, many with their wives and guests, were Harris Cox, the Western Geophysical International executive; L. L. Aubert, president of Bankline; Milt Loy, Schlumberger; Leonard Andrews, Andrews Butane; Bill Farrer, the Nomads' legal



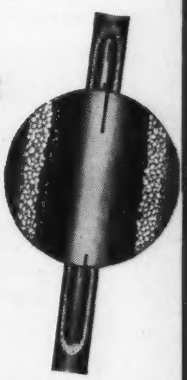
Damaged or ruined equipment, costly well-pulling, interrupted production, excessive maintenance...these are the losses inflicted by sand year after year in pumping and flowing wells. When such sand "headaches" occur, call Pacific! Pacific's *complete* Sand Control Service holds the answer to your sand problems, and will save you time and money.



2 Pacific SLOTTED PIPE

Average sand troubles disappear quickly with Pacific Slotted Pipe. After analysis, one of three different types of slots is recommended for your particular conditions: Keystone slot (undercut); Straight slot; and Extra-Fine Gauge Straight slot.

Many producers use Pacific's "one-stop" Threading Service which saves time and places definite responsibility on able Pacific management and skilled operators using precision equipment.



1 Pacific GRAVEL PACK LINERS

The most severe sand conditions are eliminated by Pacific Liners. Wells are pumped for longer periods, without any decline in the daily production rate. Your particular trouble is carefully analyzed by Pacific engineers, and each Pacific Liner is built to meet the exact requirements of your particular well. There's no guesswork! That's why Pacific Liners are getting such outstanding results today under a wide range of field, well and operating conditions.

Behind Pacific's complete Sand Control Program is thorough technical knowledge...and an enviable reputation for unchanging excellence of goods and services.

No matter what kind of sand condition occurs in your well, there is a Pacific product, service or counsel available to assure you safe, continuous production. When you hit sand, CALL

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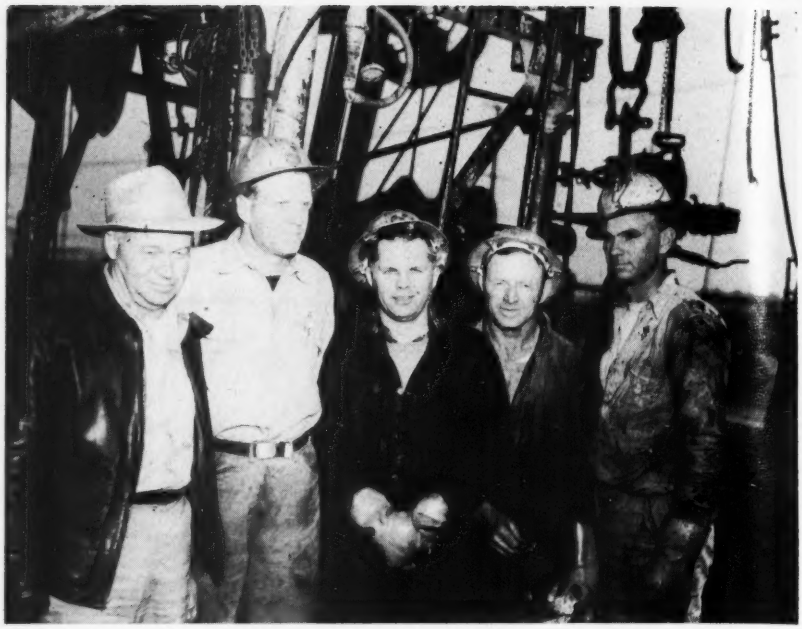
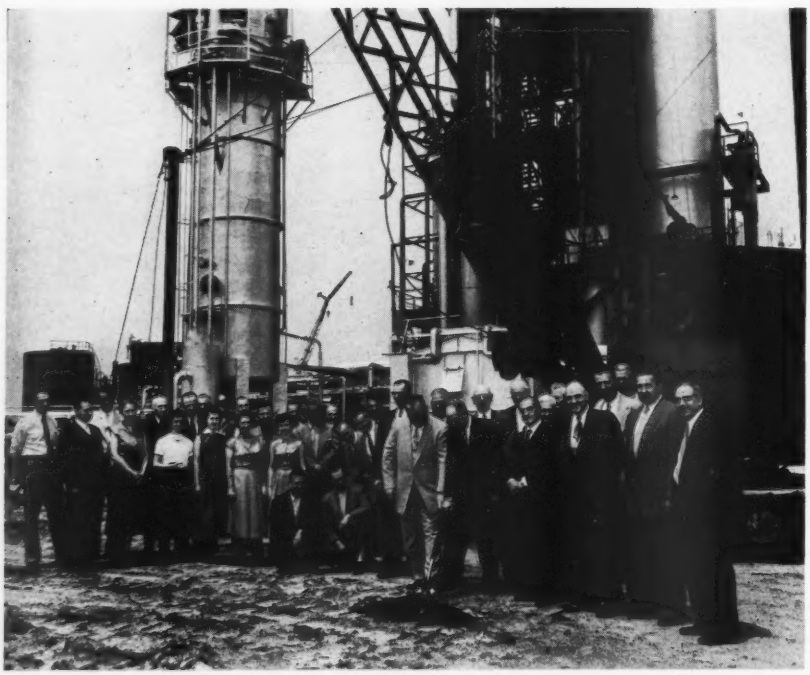
counsel; Ed Lemen, U. O. P.; Bill Kirk, California Southern; Jim McNeill, consultant; Bill Gest, DuPont; Nick Van Wingen, consulting; Homer Steiny, Tide Water As-Locker and M. F. Weill, Ethyl Corporation; Ed Lyons, our singing companion; Joe Stephens, Kern Oil Company; Paul Broxon, Western Gulf; Paul Ottoson, Signal Oil & Gas Company; "Sandy" Sandland, C. F. Braun; Pert Sargent, Sargent Engineering Corp.; D. E. Taylor, Shell Oil Company; Vic King, General Petroleum Corp.; Wendell Jones, Bethlehem Supply Company; Ollie McFaddin, B. J. & M. Drilling; Homer Steiny, Tidewater Associated; Milt Lewis, consultant; Ernie Snyder, E. F. Snyder Company; Archie Fraser, Fraser Enterprises; Glenn Henderson, Lufkin Foundry and Machine Company; Read Winterburn, Union Pacific; and Bob Sumpf, consultant. There were many more, but time and space do not permit a full list. Anyway, it was a nice congregation and everybody had a lovely time.



L. B. O. D. Oil Co.'s W-106 on Terminal Island. Left to right: Weldon Gilmore, production foreman; Wayne Gilmore, head well puller; George L. Shields, floorman; O. T. Duncan, floorman; Dale Turner, derrick.

The Globe Girdlers

Ed Bedford, the Western Gulf land man is off on a trip to Europe, and we shall hope to relate some of his adventures when he returns. Just back from his round-the-world jaunt is Archie MacDonald. Archie, with his usual goodness, brought us another scad of odd coins from scattered parts of the universe. There are square ones from Pakistan, scalloped ones from Ceylon, perforated ones from Straits Settlements, and there is even a 100-franc chip from the fabulous Monte Carlo gaming tables—all mighty interesting and much appreciated. On the subject of world travel, we have a card from Charlie Smith in Stockholm, whence he had traveled by boat from Sweden through canals, lakes, and the Baltic Sea. He was leaving shortly thereafter for Norway.



John Stackner, general manager of the Clark Oil & Refining Corp., Milwaukee, Wis., and Mayor John M. Hart of Blue Island, Ill., team up to turn the first shovel full of dirt on June 8 to signal the start of construction on a 5,500 B/SD UOP Platforming unit at Clark's refinery in Blue Island, a suburb of Chicago. On Mr. Stackner's immediate right is John Crawford, vice president of Clark. Dr. Gustav Egloff, director of research for Universal Oil Products Company, is on Mayor Hart's left. Others in the picture are Clark employees, city and civic leaders of Blue Island, and officials of Procon Incorporated, which is building the Platformer, the first in the Chicago area.
Photo Courtesy Universal Oil Products Company

The Latest in Golf Yarns

We got a kick out of Henry Paulsen's latest golf story, which goes something like this: A pro at one of the local clubs, in need of a little practice, picked up a stranger and invited him to play. The stranger said, "Thanks, I will." At the end of 18 holes the pro was very badly beaten. He asked his opponent where he had learned the game, and the latter replied, "From my father." "I'd like to play him, too,

TCP releases power other fuels lock in

Shell Premium Gasoline with TCP* boosts engine power up to 15% by counteracting lead and carbon deposits

You'll feel your engine's had a tune-up before you've finished the second tankful

All of today's gasolines contain deposit-forming compounds. And in a very few hours of driving—*even with a brand-new car*—lead and carbon deposits form in combustion chambers and on spark plug insulators. These deposits start tying up engine power two ways.

First, as they become heated red-hot in the combustion chambers, these deposits ignite the fuel charge *before* the piston reaches the proper firing position. This condition is called *pre-ignition.* Power works *against* you, not *for* you!

Second, as these deposits accumulate, they also short-circuit spark plugs, causing them to misfire. Fuel remains unburned, power is wasted.

Now TCP—a Shell-discovered additive—enables you to enjoy full performance from modern gasoline by neutralizing these engine deposits.

Here's how: It "fireproofs" the lead and carbon deposits inside the combustion chamber. Pre-ignition is controlled. At the same time TCP additive alters the electrical characteristics of these deposits so spark plugs no longer misfire.

TCP acts quickly

Before you've finished your second tankful you'll feel your engine's had a tune-up. But, remember, because these deposits accumulate constantly, *continued* use of Shell Premium with TCP is essential to retain its *full* benefits. It is the greatest gasoline development since the discovery of tetraethyl lead. Shell Premium with TCP is available only at your Shell dealer's.

*Shell's Trademark for this unique gasoline additive developed by Shell Research. Patent applied for.

The Greatest Gasoline Development in 31 years

SHELL PREMIUM *WITH* TCP

SHELL

Union Pacific's E-40-R on Terminal Island with Terminal Drilling Company handling the work. Left to right: L. E. Snyder, racker; E. K. Witcher, cathead; J. C. Tice, driller. Rear: F. E. Ruth, lead tong; O. E. Canedy, derrick.

sometime," suggested the pro, and a game was arranged in which the pro received another nasty licking. At the conclusion of this second game, the puzzled and humiliated pro asked the usual question, "Where did **you** learn to play like that?" and was told, "From my father." "My gosh!" he said, "How old is your father?" "Eighty-seven," was the nonchalant reply. "Do you think you could arrange a game for me with him?" he asked. "Sure!" was the swift response. "Well, how about next Wednesday?" continued the pro, and the other fellow answered, "No, he couldn't play on Wednesday, that's the day he is getting married." "For the love of Pete," said the pro, "What does an 87-year-old want to get married for?" "He doesn't **want** to," said the other fellow, "He **has** to."

Free enterprise and the American way of life is strikingly exemplified by the thriving place in business life occupied by Brown Drilling Company of Long Beach.

The company, whose founder and president is genial E. C. (Ned) Brown, was incorporated under the laws of California in 1937.

An official start toward actual operation was accomplished by the purchase of a small drilling rig from a Signal Hill organization. Original headquarters were a portion of an old dwelling on Willow street in Long Beach which had been converted into offices. The lone rig when not in use was stored on a rented rack on Signal Hill.

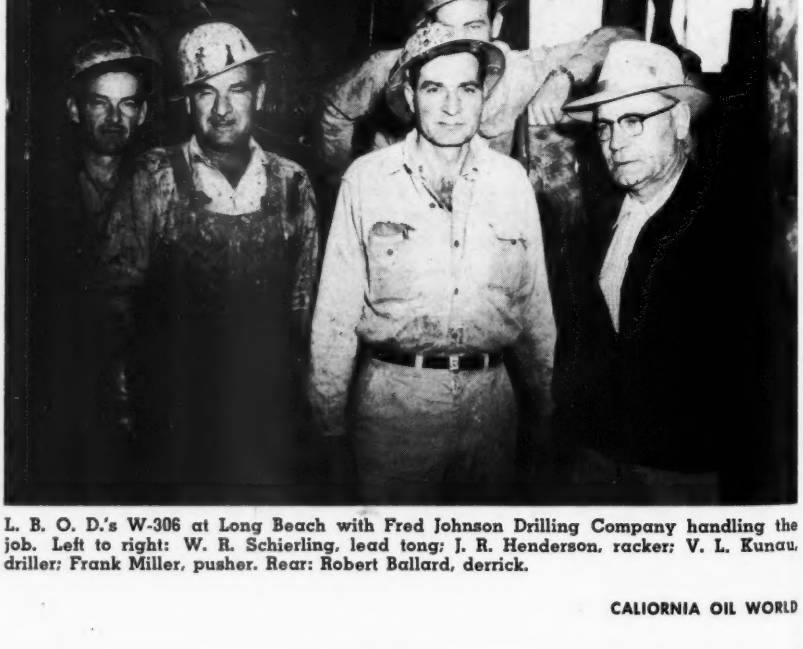
From this shoestring stake in 1937, Brown Drilling by Dec. 31, 1953 had drilled 941 wells, representing a total of 3,727,836 feet.

Brown currently has a string of nine National power driven rigs comprising ultra-modern equipment and top efficiency. Two strings of tools are busy in Australia for California Texas Oil Company, Ltd., and the West Australian Petroleum Pty., Ltd., respectively. Another string will be active in the near future.

In 1945 the Long Beach drilling organization was selected by the Arabian American Oil Company to drill in Saudi Arabia. The company also deep drilled in Bahrein Island in the Persian Gulf for Bahrein Petroleum Company, Ltd. Another contract job, among many others, conducted by Brown in foreign climes was for the American Independent Oil Company in the Kuwait-Saudi Arabia Neutral Zone.

New laurels were won by Brown in California by its latest Seal Beach exploration venture from a permanent and man-made island offshore. Brown Marine Drilling Company, the first contract firm in California to drill from such an island, was recently formed and is headed by Ned Brown.

Raymond T. Laird, widely known petroleum consultant, has opened office in Oxnard. He was consultant on some of the first wells drilled during the boom in the last several years.



L. B. O. D.'s W-306 at Long Beach with Fred Johnson Drilling Company handling the job. Left to right: W. R. Schierling, lead tong; J. R. Henderson, racker; V. L. Kunau, driller; Frank Miller, pusher. Rear: Robert Ballard, derrick.

Field Development

Deep Test Draws Near For Potrero

Impending for the Potrero area of Los Angeles County is a deep test under the sponsorship of Tide Water Associated Oil Company on Section 34-2s-14w or in close proximity to the Hollywood Race Track. From all reports, the project will go to at least 11,000 feet. Tide Water's move in this direction is not entirely a surprise as it has been generally known for some months that such exploration was having the favorable consideration of company production men. Incidentally, the Potrero field was opened in 1928 by Associated Oil Company, which later merged with Tide Water Oil Company, by drilling along the Inglewood fault. The discovery well was known as Cypress No. 2 and it came in from 4620 feet for 1050 barrels of gravity oil a day and thereby opened the Cypress pool. Other pools since developed, include townsite, East Townsite, Potrero and Inglewood. Standard, by the way, has added a new well on Section 17-2s-14w at Inglewood at a total depth of an even 2200 feet for 115 barrels of oil on the pump daily. Another drilling job on the section is ready to spud-in.

Union Oil Begins Two Basin Wildcats

A brace of wildcat wells have been started in Los Angeles County areas by Union Oil Company. They are Stearn No. 1 on Section 12-3s-11w at Leffingwell, and Union-Puente Farms No. 1 on Section 15-2s-11w at Whittier. Both are in Los Angeles County.

Bandini Well On Production

General Exploration Company has completed its CCMO No. 4 well on Section 17-2s-21w in the Bandini neighborhood of East Los Angeles for what appears to be a producer on parity at least with previous wells. Total depth is 5585 feet and the 7-inch casing was set at 5432 feet or just above the Nordstrom sand, tapped in the Santa Fe Springs field. The well evidently took in about 150 feet of zone. It offsets CCMO No. 3, which was completed six weeks ago and for a time was cut rather high by water. However, during the time intervening cut became thinner and thinner and a recent check indicated yield was 200 barrels of net 40 gravity oil a day. Gas yield is 746,000 cubic feet daily. CCMO No. 4 is the fourth producer taken down by General Exploration at East Los Angeles. An associated group is composed of National Oil, Christopher Oil, Bolsa Chica, C. G. Willis and Basin Oil.

Offshore Project Nearing Objective

On a stone and concrete island offshore Seal Beach, Monterey Oil Company and The Texas Company continue to drill below 7000 feet with their interesting tidelands explorer. Announced objective is 7500 feet where the Terminal zone is anticipated. The zone is productive in the Wilmington field and whether it stretches to beneath the ocean floor at Seal Beach is likely to shortly be determined by the operating combination.

In passing it is of interest that The Texas Company is preparing to build a $2,000,000 height-limit structure on

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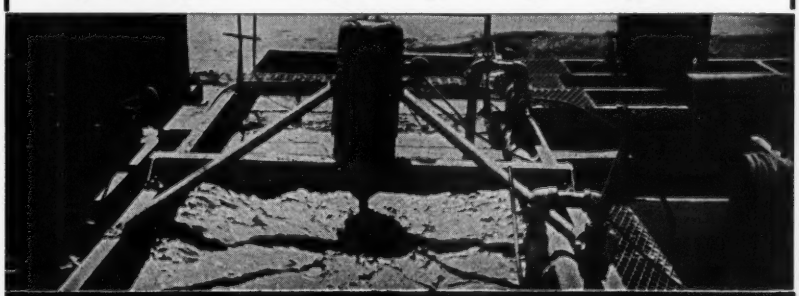

BROWN MUD COMPANY

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Catalina street near Wilshire boulevard in Los Angeles. The building will be put up on a site approximately 175 by 350 feet. Texaco plans to use it as its western headquarters.

Play Formulated Near Russell Ranch

Highly impressive and of top importance is the play set in motion by Aeco Corporation of Beverly Hills by a test well located within one and one-half miles from the Russell Ranch field. The project, Aeco-British American-Shell No. 1, is in Section 13-11n-28w in San Luis Obispo County and also about one and one-half miles in another direction from the Morales field. Russell Ranch wells are tapping both the Dibblee and Colgrove zones. Wells in the Morales field draw from the Soda Lakes zones.

Aeco's interesting venture is on a 120-acre farmout from British American Oil Company, in which the latter retains a one-third interest. The 160-acre lease directly north is held by Shell Oil Company, which is understood contributing $75,000 bottom-hole money toward financing of the project. This material support sets some sort of a record for contributions in this category.

Ground stretching out in all directions from the Aeco play is mainly held by Southern California Petroleum, The Texas Company, Hancock Oil, Bishop Oil, Superior Oil, Sunray Oil and Signal Oil & Gas.

The play was put together by H. A. (Andy) Eklund and it should not escape notice that a discovery could possibly rival and duplicate performance established by the Russell Ranch and Morales fields.

Shafter Wildcat Seeking Gas Zones

Chances are generally considered good that Tide Water Associated Oil Company will come off with success in proving new gas production in the Shafter area of Kern County with its TWA-Capital Co. and Stone No. 1-18-1 on Section 18-28s-25e.

The project is situated only one-quarter of a mile or so northwest of the company's earlier test which was abandoned at 12,563 feet. However, gas showings around 4300 feet were a factor in leading to the test underway.

An engaging sidelight to the present test was the moving of surface location three times before final spudding-in action. The site was first shifted to lessen the chances of drift eventually bringing bottom of the well on property held by others. Next, it was transferred to keep clear of a water well and last to shunt location from interference with cement irrigation lines.

Since Tide Water wrote off its first test well, the company has formed gas pooling gas units at Shafter setting up development of the gas zone on spacing of one well to 160 acres.

Casey & Montgomery Drilling Company is handling the work on the well, which at last reports was moving deeper below 1600 feet. The 11 3/4-inch surface pipe was cemented at 572 feet.

Also active at Shafter is Superior Oil Company. Its Russell No. 73 on Section 17-28s-25e is well below 12,200 feet.

Pyramid Hills Test On The Way

Latest test well to begin drilling in Kings County's Pyramid Hills area is the Caminol Company's Dagany No. 2 on Section 33-24s-18e. On Section 20-24s-18e, Norris Oil Company has pulled out at 1344 feet from its Oceanic-Franco Western-West Slope No. 1.

Lerdo Wildcat Interest Center

After being on the drilling calendar for some months, Humble Oil & Refining Company's Humble-Intex-Lerdo wildcat test No. 1 on Section 4-29s-27e in the Lerdo sector is in motion toward objective goal of 8000 feet. The well is north of Fruitvale and one and one-quarter of a mile south and west of an unsuccessful test taken down a year ago by Intex Oil Company to several feet above the 4400-foot level.

Temblor Hills Under Test Work

Pacific Western Oil Corporation is all set to drill its Southern California Petroleum-Twisselman No. 17A-2

TINE GAISER ....*Contract Drilling - Production Service*

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BAKERSFIELD, CALIFORNIA

wildcat well on Section 6-30s-20e in the Temblor Hills, 10 miles northwest of McKittrick. A prior test, Hagood No. 43-12, was drilled to 2700 feet and then went the way of all dusters. It was situated a mile or a little more southeast of the new effort.

Tulare County Wildcats Active

Lloyd A. Harnish & Associates' No. 72 wildcat venture on Section 27-23s-23e in Tulare County has logged no less than a 1000 feet at this writing. Location is two miles northeast of Alpaugh on a farmout reported taken from Geochemical Surveys. Primary and main objective is the Mya sand around 3000 feet. Contractor is Green & Heiser. Frank Taylor and Tom Fitzgerald are in charge of engineering.

In relation to Geochemical Surveys, this organization has opened work on its Bendetti No. 77-10 on Section 10-24s-24e, with Gene Reid Drilling Company taking the project down on contract. The well is in the vicinity of Allensworth and probably will not be viewed by the operator as a satisfactory test until drilling has carved out at least 7000 feet.

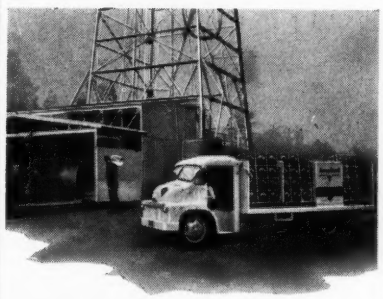
Sand Hills Test Drilling Steadily

The illustrious banner of General Petroleum Corporation flies above the interesting test well at Sand Hills in Kern County. The project, S.P. Tejon No. 16-3 on Section 3-11n-19w, keeps digging at 6900 feet ,after a drilling interruption caused by a fishing job which was completed in rapid time.

Maddux Ranch Test Underway

No good reason appears that Union Oil Company will not at least find fresh gas production with its Seaboard-Honolulu No. 14-7 test on Section 7-30s-21e on the Maddux Ranch, underway and last reported drilling ahead beneath 1300 feet. The area is northwest of the Belgian Anticline field and the well an offset in the same direction from Union's latest and successful completion in that part of Kern County. The earlier well, Hancock No. 25A-7, was brought to life last April for an initial outcome of 4,450,000 cubic feet of gas a day from the interval of 1500-1557 feet in the Phacoides sand stratum.

Northwest of the Lost Hills, field, Union has completed its Seaboard-Saunders No. 63-29 on Section 29-25s-20e, but not with results expected. Drilling was in force to a total depth of 2567 feet and the hole then plugged back to 2515 feet. Yield just now is about nine barrels of 25.5 gravity oil a day, cutting about seven per cent.



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Give your men healthful, delicious drinking water. Arrowhead Spring Water and Puritas Drinking Water are delivered in 5-gallon bottles. Coolers loaned FREE to regular users. Order by telephone. Look under "Water" in your local directory.

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Mountain View Wildcat Quits

A closely watched quest for production in the Mountain View area has been disposed of at a total depth of 8330 feet. Sponsored by the M J M & M Oil Company of San Francisco, the well was known as Union-Atlantic-Wilson No. 18-20.

Poso Creek Test Drilling Constant

The Richard S. Rheem, Operator, Bishop-Movius No. 1 test on a 700-acre lease on Section 4-28s-27e near Poso Creek production is drilling below 1000 feet. The operator divides interest in the well with Bishop Oil Company of San Francisco. It is a 2500-foot test.

Over at Mount Poso, Federal Oil Company's Vedder No. 1 on Section 20-27s-28e is drilling at an intermediate stage. It is located between the main Mount Poso area and the outpost Vanguard sector.

Fresno County Still Active

Wells drilling at various stages in Fresno County wildcat ground include Artnell Company's L-W No. 88-14 on Section 14-21s-16e at north Kettleman Hills, the Los Nietos Company's No. 81V and No. 84V on Section 18-20s-16e at Coalinga, and the Lloyd A. Harnish, Operator, No. 81-4H on Section 4-21s-16e at west Guijarral Hills. The F. W. Taylor, Operator, No. 63 on Section 16-20s-16e at Guijarral Hills has been abandoned at 4750 feet. In the Raisin City area, the Harry C. Long, Operator, No. 1-88 on Section 4-15s-17e, likewise, has gone off the board at 5252 feet.

Carrizo Explorer Tinged With Promise

From nowhere else but wholly unofficial sources came word that Elmer C. von Glahn & Associates' wildcat project in the south Carrizo area had a hue of encouragement. Tagged Washburn No. 1 and on Section 36-32s-20e in San Luis Obispo county, the well to a great extent has been in the no dope category in going to nearly 6000 feet. The play is enhanced by a lease of some 3600 acres around the well site, with drilling in the hands

of Gibson Drilling Company. Von Glahn at one time was the leading agriculturalist in San Joaquin Valley if not in the world. His cotton and other crops and different phases of his great ranch every once in awhile made headlines and were the subject of the familiar motion picture news reels.

In Fern Canyon, Intex Oil Company is about ready to deepen from 1756 feet with heavier equipment its Sauret No. 1 wildcat on Section 25-26s-11e. Up Atascadero way, S. E. Hogue's No. 1 wildcat on Section 26-28s-12e is still inactive at a depth of 1375 feet.

Alferitz Wildcat Drilling Steadily

Hancock Oil Company was not many feet above 3000 with its Hancock-M J M & M CCMO No. 34-24 wildcat when this was jotted down. The well is on Section 24-25s-18e, southeast of the Alferitz Anticline in Kern County.

McKittrick Front Exploration Scene

Standard Oil of California's Spreckles No. 75-16Z in Kern County's McKittrick Front sector keeps drilling under 1800 feet or thereabouts. It is situated three locations east of a well taken down by Standard to 4410 feet on ground three-quarters of a mile north of McKittrick and abandoned five years ago. More specifically, the project digging is on Section 16-30s-22e.

If showings in a well have anything to do with it there is plenty of water in the Greenacres area to keep it greener than the shamrocks of old Ireland. Ever since the area was opened to production more than a year ago, water has been an unwelcome intruder. This is borne out by the latest completion in the area, Standard's' KCL 36 No. 15-20. The well was let loose at a redrilled depth of 4306 feet and the most recent check disclosed yield was composed of 38 barrels of 13.5 gravity oil and 88 barrels of water a day. Gas yield was 8,000 cubic feet daily.

South Greeley Venture Drills

With San Joaquin Drilling Company guiding its destiny, Western Gulf's Houghton No. 1 exploratory hole on Section 29-29s-26e, south of the Greeley field, continues to probe steadily and deeper at a depth approximating 6200 feet.

Introducing another of

"Big Ed" Plaugher's Boys...

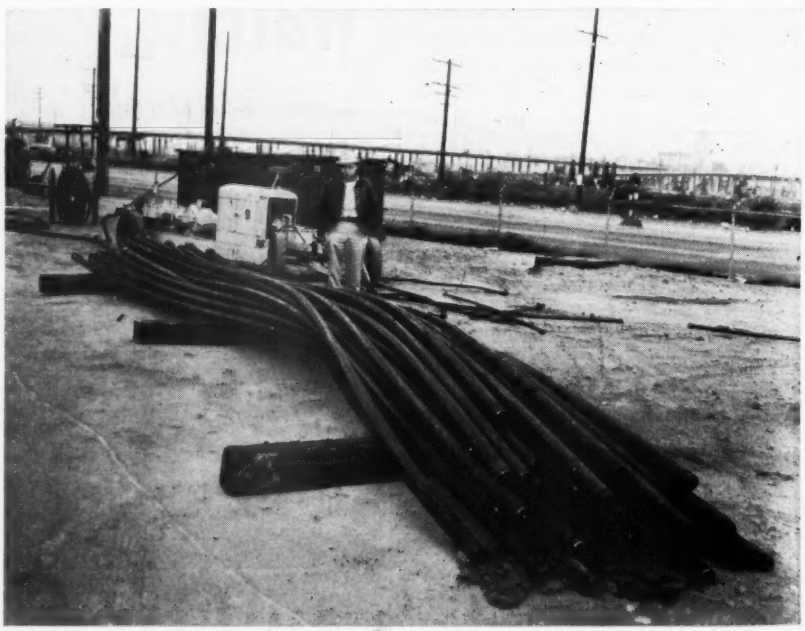
. . . known as Ray Morris, who will be working the Los Angeles Basin selling Web Wilson Oil Tools. ★ He does *not* carry Web Wilson HYDRA HOOKS around in his back pocket, but he can get one for you on the double.

And he *does* have TIGER TOOTH Tong Dies (the kind that DO GRIP and WON'T SLIP) right in his car. ★ He would be mighty glad, too, to tell you about those "Balanced" Web Wilson Power Slips, which are *really something.* ★ Just phone Menlo 4-4923 and ask for Ray Morris—you'll get action!

Tejon Well Looks Good

Signs visible so far all point to a well good for several hundred barrels of settled production from Reserve Oil & Gas Company and Edwin W. Pauley's new No. 32-34 on Section 34-11n-19e in the Tejon-Grapevine confines of Kern County. The well was bottomed at 6770 feet after once being abandoned a dozen years ago at 4926 feet. Deepening of the well, of course, was influenced by performance of the Reserve-Pauley No. 42-34 discovery, completed a couple of months ago for 30 gravity oil in quantity from the interval of 5675-5743 feet. The new producer was completed from the Olcese sand topped near 5785 feet.

A half-mile east of wells producing in the Tejon Hills field, Charles C. Townsend is the operator of a test well drilling on Section 14-11n-18w. The project at last reports was not far off completion depth, usually somewhere between 1000 and 1200 feet in the general section. The launching of this well recalled that Section 14 through the years has been the scene of many wildcat tests but they appear to have all fumed and fretted to a frustrated unproduction and final level.



Tubing Troubles! Weldon Gilmore, production foreman of Long Beach Oil Development, studies 2½" tubing from well W-106 at Terminal Island. Problem developed, according to Mr. Gilmore, due to subsidence of earth at about 2160 foot depth.

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Up in Pico Canyon, near Newhall, is California's oldest commercial oil well. It was completed September 26, 1876, and has been in continuous production ever since.

Brought in at a depth of 300 ft, this venerable well was later deepened to 600 ft and again to 1050, at which point mechanical pumping had to be installed. At a celebration held in 1953, the well was honored by the Petroleum Production Pioneers, and a monument and plaque now commemorate its colorful career.

Today the old-timer is producing from a depth exceeding 1200 ft. The oil, 37.2 crude, is brought to the surface by a Bethlehem 25D pumping unit, which offers a striking contrast between the old and the new. Efficient, powerful, smooth, this unit is indeed a far cry from the obsolete device that first pumped the well many years ago.

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South Simi Test Staked

International Petroleum Consultant, Ltd., Operator, has staked location for Montgomery No. 1 in the South Simi area of Ventura County. Ted Jones Drilling Company is set to do the work.

Fillmore Due For Further Exploration

Standard Oil Company, which reported early last April following its Fillmore discovery that it would drill a followup by and by, figuratively has taken another deep breath and is ready to take down Sespe Ranch No. 2 in the newest Ventura County field. The Sespe Ranch No. 1 discovery, on Section 27-4n-20w, was completed flowing last April 4 at the rate of 510 barrels of 27.2 gravity oil a day through a 21/64-inch orifice, along with 457,000 cubic feet of gas a day. The project was carried to a total depth of 14,315 feet and then plugged back to 14,240 feet. Open was the jet perforated interval of 14,170-14,235 ft. Because of the Standard success all available land in every direction has been leased and fresh and important drilling therefore, naturally impends.

One well which is being closely watched in the sector is General Petroleum Corporation's Crosby State No. 1 on Section 24-4n-19w, which has been abandoned at a redrilled depth of 10,960 ft., after being aggravated by mechanical mishaps. Originally a depth of 12,150 feet was attained when drill pipe twisted off and recovery operation proved without avail.

Martinez Gas Test Drilling

Southwest of Martinez in Contra Costa County, Lighting Gas & Oil Company's Almond No. 5 wildcat on Section 31-2n-2w is digging at 3000 feet or so. Near Colusa in Colusa County, Honolulu has commenced its Honolulu-Humble-Cauzza No. 1 test on Section 18-17n-1w. Two miles southeast of Pleasanton townsite, The Texas Company also has begun its Foley No. 1 on Section 34-3s-1e, Alameda County. Drilling has reached 1800 feet and is continuing on down in Artnell Oil & Gas Company's Grussendork No. 1 wildcat on Section 7-4n-7e in the Galt area, San Joaquin County. In the Van Sickle Island sector of Solano County, Union Oil's Dow-Ward No. 2 on Section 30-3n-1e maintains normal drilling operations below 1000 on a trip deeper.

Glenn County Deep Test Listed

The horizon about three miles from the town of Willows will shortly be silhouetted by a Humble Oil & Refining Company drilling rig for in this Glenn County sector is planned a deep test to 15,000 feet. Drilling will be contracted, it is said.

Winters Area Under New Test

More than a 1000 feet of hole has been drilled by Universal Consolidated Oil Company's Wallace No. 1 wildcat, which is seeking additional gas for the Winters area on Section 12-8n-1w, Yolo County.

Oxnard Play Keeps Widening

Lloyd Corporation has added to its calendar for immediate drilling its Lloyd Corporation-W. R. Livingston No. 2 on Section 6-1n-21w in the expanding Oxnard area of Ventura County. This new job is on an extension test of the company's recent discovery, Lloyd Corporation-W. R. Livingston No. 1. This discerning project hit upon new oil in going to 10,034 feet. It was completed flowing last March at the rate of 636 barrels of 32.1 gravity oil a day from interval perforated from 9988 to 10,022 feet. Meantime, Standard is moving ahead with its development program at Oxnard on the McInnes lease.

Point Arguella Wildcat Demised

On formation test of the interval of 3688-3722 feet in the Stansbury-Webb and George J. Greer, Trustee, Spanne No. 1 nothing but salt water was recovered and at a bottom of 5558 feet finish for the wildcat was written. Location was on Section 16-6n-35w near Point Arguella, Santa Barbara County. Northwest of Lompoc, a Union Oil Company well, Arkley No. 23-20 on Section 20-8n-34w, is moving ahead around 4800 feet. The contractor is Sante Fe Drilling Company. In the primary stages are California Southern Oil Company's Capitan No. 1 test on Section 33-5n-30w at Capitan, and The Texas Company's Pata No. 1 on Section 2-5n-34w at Salsipuedes Creek.

Yucca Valley Well Testing

Conventional tests are underway in intervals at 1260-1268 and 1295-1298 feet in Tampico Land Development's Retari No. 1 wildcat on Section 25-2n-5e in Yucca Valley, San Bernardino County. Total depth is 1311 feet.

La Habra Wildcat Drilling On Down

Erin Oil Company's Freedman No. 1 exploratory well on Section 5-3s-10w at north La Habra in Orange County is continuing to carve below 3200 feet toward a 9000-foot target. Jake Freedman, president of the Sands Hotel at Las Vegas and several other Nevada business men hold a stake in the play. Location is a short distance south of Union Oil Company's model oil development in the Sansinena field, behind La Habra hills and immediately east of Whittier. Union's Sansinena No. 9-B-6 on Section 33-2s-10w has been completed at a plugged bottom at 6890 feet for 260 barrels of oil and 185,000 cubic feet of gas a day. Drill sites in the field are in deep gullies, hidden from view and effectively screened by expert landscaping. Rigs are completely soundproof and covered with acoustical insulating material.

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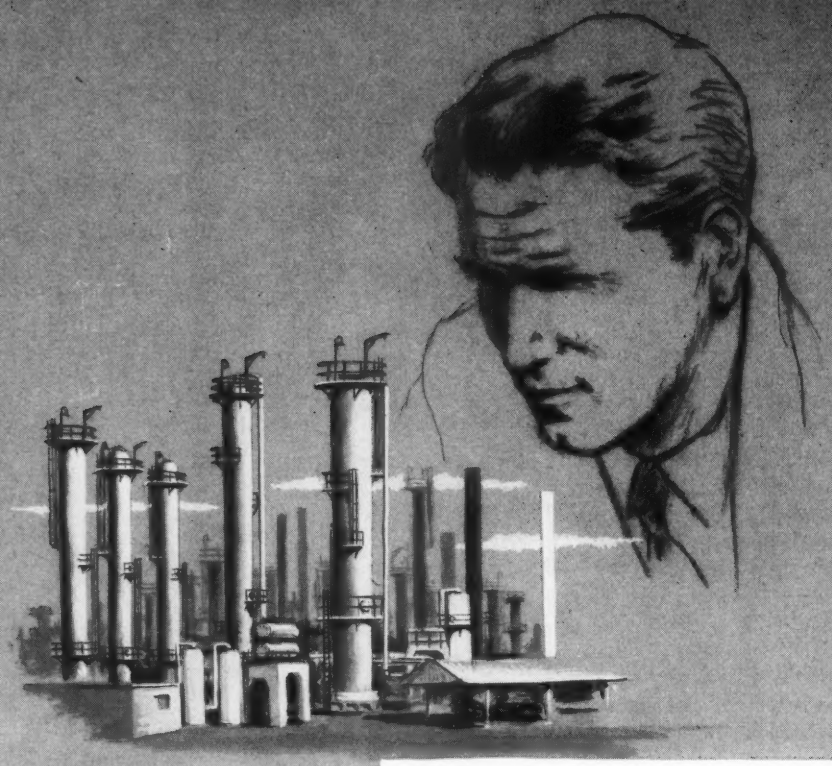

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Casing Runs Are Speeded With Air Tongs

By R. H. Sneddon

D. F. "Duke" Bloom and his air operated casing tongs are a busy combination these days. A couple of years ago we watched while Duke and Hal Jones established what was then believed to be a record on the Lloyd Corporation Well No. 42 in the Ventura Avenue field. On this occasion with the aid of a differential fill-up casing shoe and collar, and a detachable thread protecting device that was very effective, Duke and his aides ran 11,180 feet of 7-inch casing, including 7000 feet of 26 lb. and 4180 feet of 29 lb., in a total elapsed time of 6 hours and 30 minutes.

In the meantime, they have run approximately seven million feet of pipe in jig time. At Coles Levee, for Richfield Oil Corporation, they beat their former record by running 12,572 feet of 7-inch in 6 hours and 12 minutes. A most important aspect of the operation, too, is that the proper torque is applied to each joint and with the use of the thread protectors, already mentioned, a full measure of thread protection is assured. The organization has run 7200 feet of 5½-inch in three hours flat, and also for Richfield at Coles Levee ran 17,500 feet of 7-inch. The

normal time of makeup prior to running in the holes is about 20 seconds per joint on 8 rd thread. On extremeline pipe only 8 seconds are required.

The equipment consists of one ton Chevrolet trucks, two Worthington Hy-speed compressors (the compressors put out 120 cubic feet per minute with an operating pressure of approximately 150 lbs.), two International U2A engines, with 24 by 72-inch air receivers, two 65-ft. high pressure hoses, and Hillman-Kelley air operated casing tongs, with changeable jaws, and torgue indicators. The set-up permits running of 5, 5½, 6⅝, 7, 7⅝, 9, 9⅝, 10¾-inch casing, and the Duke Bloom organization operates stations in Ventura, Long Beach and Bakersfield and has eight trucks and ten operators all ready to go at any time.

The company has just finished running 5½-inch casing in the Ohio Deep Hole—17,226 feet. This was not for speed so much as for perfect makeup on joints—the same as in the case of Richfield referred to above.

Republic Supply Appointed Distributor By Unit Rig And Equipment

The Republic Supply Company of California has been appointed exclusive distributor in California by Unit Rig & Equipment Company of Tulsa, Oklahoma, according to an announcement by John J. Pike, President of Republic Supply Company and Paul Courtney, President of Unit Rig, upon signing the agreement.

The new distributorship provides for sales and service for the Unit Rig line of oilwell drilling rigs and components. Units Rig products include five different models of drawworks and two trailer-mounted drilling units with telescoping masts of 94 and 97 feet respectively.

A factory representative of Unit Rig will be located at Republic Supply's Los Angeles Headquarters.

The Republic Supply Company of California is an independent pioneer western concern in the oilwell supply business, which was established in 1910 by P. M. Pike, present Chairman of the Board, and later incorporated under the present style in 1917. The

President John J. Pike, The Republic Supply Company of California, signs executive distributorship agreement with Unit Rig and Equipment Co. of Tulsa, Oklahoma, while Paul Courtney, President of Unit Rig, looks on.

firm has nine oilfield stores at present, and has a store to serve in every major oil discovery in California. Sixteen branches, warehouse headquarters and sales offices are located throughout that state, with sales service extending to Phoenix, Arizona.

Halliburton Observing Thirtieth Anniversary

The thirtieth anniversary of Halliburton Oil Well Cementing Company will be observed July 1st at the company's Duncan Oklahoma headquarters. Fifteen men will receive specially-engraved 30-year watches from Erle P. Halliburton, founder and chairman of the company.

Some 7,500 homeoffice employees and their families are expected for a company-sponsored barbecue and circus on July 1st. That day is also the annual stockholders' meeting.

The Halliburton company was incorporated on July 1, 1924 by Erle P. Halliburton. The new company then had 56 employees. Today, over seven thousand men and women are employed in 23 states and 13 foreign countries.

Eureka Canyon Project Tabled

Eureka Canyon in Ventura County failed to give The Texas Company anything along commercial lines and the hunter in this direction, Sloan No. 1 on Section 32-4n-18w, quit at 10,038 feet. In the Sespe area, Western Empire Petroleum Company's Church No. 1 wildcat venture on Section 33-5n-19w evidently has suspended operations at 505 feet.

George B. Coale Named General Manager of Baroid Sales Division, National Lead Company

Mr. George B. Coale has been appointed General Manager of the Baroid Sales Division, National Lead Company, succeeding George L. Ratcliffe, Vice-President of National Lead Company. Mr. Ratcliffe served as the General Manager of Baroid prior to Mr. Coale's appointment.

George B. Coale

Mr. Coale graduated from the Naval Academy with the class of 1927. In 1935, he joined National Lead Company. At the time of his appointment as Assistant Manager of Baroid in 1949, Mr. Coale was the Chief Engineer for the National Lead Company.

Mr. Ratcliffe will remain active with the Baroid Sales Division in his capacity of Vice-President, National Lead Company.

Zembal and Day Advance at Jorgensen

The Earle M. Jorgensen Co. on June 1 appointed Harry Zembal as credit manager for its Los Angeles plant. He succeeds George A. Day, and the latter will now devote full time to his duties as company treasurer.

Zembal has been assistant credit manager since joining the Jorgensen company in 1946. Prior to that time, he saw action as an aerial navigator with the air force in the far east. Originally from Chicago, he attended Illinois Institute of Technology and Northwestern University and was employed in that city by DuPont and National Cylinder Gas Co. He now resides with his wife and three children in Downey.

The Jorgensen company operates warehouses for the distribution of steel and aluminum products in Los Angeles, Oakland, Houston, Dallas and Tulsa. The Los Angeles operation also includes a forge plant, where various types of open and closed-die forgings are produced.

Nick Cuccia, former Los Angeles Lincoln High School footbal great, Sam Ramsey of Coalinga, Vic Gobelman of Bakersfield and Lloyd Childers of Arkansas are members of a crew representing Brown Drilling Company in western Australia. They are studying a barren and lonely sector not far from Exmouth Gulf to determine as far as possible whether the discovery scored a year ago points to limited development or of something of more or less wide proportions.

G. V. Leece Elected President Of Gardner-Denver Company

Gifford V. Leece has been elected president of Gardner-Denver Company, Quincy, Illinois, and Benjamin C. Essig has been elected executive vice president, according to an announcement by Ralph G. Gardner, chairman, following a meeting of the board of directors held in Quincy on June 10.

Mr. Leece has been vice president and sales manager since 1947. He joined the company in 1922, served in various positions at the Quincy plant and on the sales staff, and through these experiences became thoroughly familiar with all of Gardner-Denver's operations. He was promoted to the position of branch manager of Southern California activities, later was sales manager of the company's oil field products, and also served as Pacific Coast manager. In 1938, Mr. Leece was named branch manager of the New York City division, and six years later organized the export division there.

Mr. Leece is a member of the executive committee of the Compressed Air & Gas Institute and a former member of the institute's technical committee. During World War II he served on the pump and compressor divisions of the War Production Board, and is now serving on three of the boards of the National Advisory Committee.

Mr. Essig, who now becomes executive vice president of Gardner-Denver, joined the company in 1923. He graduated from the Colorado School of Mines in 1915, and engaged in mining operation and examination before joining the sales-engineering staff at the Denver plant. He later was assistant manager in Birmingham, Alabama, and was then moved to St. Louis as sales manager there. In 1933 Mr. Essig was promoted to the post of sales manager for Gardner-Denver's mining and construction divisions, and in 1938 was elected vice president in charge of the Denver plant. He has for some time served on the executive committee of the company.

Mr. Essig is a former president of the Denver Chamber of Commerce and of the Manufacturers' Association of Colorado, and has also served on the executive committee of the Compressed Air & Gas Institute. He is a director of the U.S. National Bank of Denver, the Argo Oil Company and the Denver Fire Clay Company. He is president of the executive committee of the Denver Chamber of Commerce and head of its industrial development committee; is on the advisory committee of the office of foreign trade of the Department of Commerce, and is a member of the advisory committee of the Small Business Administration for District 11.

Two of the best known oil women in the Los Angeles oil industry have similar names. To clarify, Esther Johnson is with Robert S. Lytle, and Esther Johnstone is with Oceanic Oil Company.

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Colorado

Miracle and Fifer are drilling a confirmation of their recent discovery in Logan County. The operators completed the No. 1 Monroe, ne ne nw 10-8n-53w, in the D sand, for a flow of 300 barrels of oil per day. The confirmation, the No. 2 Monroe, is in ne nw nw 10-8n-53w. Top of the D sand was logged at 4791 feet in the discovery well. The same operators' No. 1-A Sven Olson, also in Logan County, flowed 4,000,000 cubic feet of gas per day through open tubing. It is being produced through 3/8 inch choke and is producing 1,500,000 cubic feet of gas and 60 barrels of oil per day.

Shell Oil Co. has recovered a flow of 12 barrels of oil per hour from the D sand at the No. 1 State-A, e½ nw se 32-7n-52w, in Logan County. Production was from the interval 4450-75 feet.

New drilling activity announced for Logan County includes locations by Plains Exploration, British-American, Byrd Oil, and National Associated Petroleum.

Aurora Gasoline and Kingwood Oil have encountered oil and gas in commercial quantities at the No. 1 Lauck, sw sw ne 25-3n-58w, in Morgan County. A test indicated gas production at the rate of 5,000,000 cubic feet per day. The well has been shut in for storage.

In Washington County, Fallon Gas, Tri-Mark et al, recovered 90 feet of oil and 60 feet of mud cut oil on a drill stem test of the No. 1 State, nw nw sw 36-1s-55w. The test was taken at 4824-40 feet.

Wyoming

Sinclair Oil and Gas will produce its No. 15 Unit, nw nw se 10-32n-95w, in Fremont County, from the Tensleep formation. This well, which is in the Sand Draw Unit, originally produced from the Phosphoria at 6530-52 feet. It was deepened to the Madison at 7912 feet, but only oil cut mud was recovered. Tests at 7009-7402 in the Tensleep resulted in recovery of a flow of 368 barrels of oil per day.

Farmers Union Central Exchange has staked locations for two wildcats, one in Washakie County and another in Natrona County. The operator will drill the No. 1 Govt.-Snyder D, sw ne sw 24-47n-90w, in the Sherard Dome area of Washakie County for a test of the Tensleep expected at about 4700 feet. The operator also will test the Tensleep in the Natrona County well, the No. 1 Govt.-Ames, c se sw 28-36n-85w.

In Hot Springs County, Blackwell Oil & Gas has staked location for the No. 1 Lysite, nw ne ne 17-42n-90w. This will be a Tensleep at 4000 feet.

The first deep test of the Shirley Basin area of Carbon County is being undertaken by Chicago Corp. and Republic Natural Gas. Operators moved in material for the No. 1 Govt.-Marks, se ne se 17-27n-80w for a test of the Tensleep at 6500 feet.

Shell Oil Co. abandoned the No. 1 Yankee Dome Unit, sw nw ne 2-42n-96w in Hot Springs County. Operator drilled to 2855 feet in the Cambrian.

In Johnson County, Hawkins and Ranger abandoned the No. 3 Unit, se se se 17-41n-78w, in West Meadow Creek at 6925 feet in the Lakota.

Trigood Oil Co. has encountered a flow of 70 barrels of oil per hour from its Burke Ranch Unit extension in Natrona County, the No. 2 Burke, nw se se 7-37n-78w. Production is from the Dakota at around 6600 feet.

Nebraska

Shell Oil Co. has completed a small producer, 21 barrels per day, in Kimball County. The well is

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- Purchases of E and H Bonds, by *individuals* during the first quarter of 1954, totaled $1,380 million—the highest for any quarter since 1945.
- The *cash value* of Series E and H Bonds held by *individuals* at the end of March, 1954, was $37 billion, 175 million—the highest in the thirteen year history of the Savings Bond program.
- Payroll Savers are serious savers: over 75% of the amount of Series E Bonds that matured since May, 1951—almost $9 billion—is still being held by individuals under the Treasury's 10 year optional automatic extension plan.
- For the third straight month of 1954, sales of E and H Bonds exceeded maturities and redemptions. The sales excess amounted to $242 million on March 31—the highest first quarter net since 1950.

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the No. 1 Schmid, sw se 1-16n-54w, and is north of most production in the county. It is producing from the J sand.

Magnolia Petroleum has drilled a successful confirmation of Ohio Oil Co.'s No. 1 Kenton in Kimball County. The Magnolia well is the No. 1 Baur, sw sw nw 10-14n-54w. On a 24-hour test, operator pumped 125 barrels of oil. The No. 1 Kenton, ne ne se 9-14n-54w, was drilled by Ohio on a farmout from Magnolia.

Exploratory activity in Banner County, in the western part of the state, has been stepped up in recent weeks. The new drilling was stimulated by extension of the Harrisburg field.

North Dakota

The California Co. will continue to the lower Devonian, expected at 12,200 feet, at the No. 1 Rough Creek Unit, nw ne 13-148n-98w, in McKenzie County. The operator found oil showing in the Mission Canyon and drilled ahead after tests.

Sun Oil Co. will drill the No. 1 Wayne, se ne 20-162n-69w, and the No. 1 Linbo, se ne 10-162n-69w, in Rolette County. The tests will be on farmouts from Union Oil of California. They will go to the Devonian at 2500 feet.

In Stutsman County, S. D. Johnson abandoned the No. 1 Johnson, nw nw 4-143n-69w, after drilling to 3595 feet in the Devonian.

Amerada Petroleum may use directional drilling to develop oil areas which would be submerged by the Garrison Dam reservoir. The company filed a request for authorization, and a hearing on the application was scheduled.

Shell Oil staked location for the No. 1 Jorgenson, ne sw 5-156n-68w, in Benson County. Also being drilled in the same area was the No. 1 Stenson, nw ne 23-156n-69w.

The Caroline Hunt Estate has staked location for the third in a series of 15 tests on farmouts from Continental and Pure Oil in Wells County. The latest test will be the No. 1 Larson, nw ne 32-150n-70w.

Montana

The Montana State Land Board has ordered holders of 12 leases on the Cedar Creek anticline in Fallon County to begin exploration for oil on state lands. Gas is being produced from the leases, and the board's order requires drilling to sufficient depth to test oil possibilities. Montana-Dakota Utilities holds seven of the leases involved.

The California Company has staked location for a Mission Canyon test in the Cat Creek area of Garfield County. It will be the No. 1 Peterson, c nw ne 13-15n-30e, and is scheduled to go to 7765 feet. It is three and a half miles northeast of the same operator's No. 4 Charles, which was drilled in 1941.

The Murphy Corp. will drill a test in the White-Tail Creek area of Powder River County. The company has staked location for the No. 1 NP, c sw sw 19-2s-47e. There has been no previous drilling in the area.

W. H. Hunt abandoned the No. 1 State, c nw sw 26-34n-47e, in the Silver Star area of Daniels County, at a total depth of 9054 feet in the Winnipeg formation.

Heep Oil Co. abandoned the No. 1 Harwood, c se se 14-31n-6w, in the Cut Bank area of Pondera County, at a total depth of 3355 feet in the Madison.

South Dakota

Shell Oil Co. has completed a confirmation to its Ordovician discovery in Harding County. The confirmation is the No. 32-16, sw ne 16-21n-4e, which pumped 134 barrels of oil and 79 barrels of water per day from the Red River.

Utah

Equity Oil has abandoned its wildcat in se ne se 36-23s-19e in the Court House Valley area of Grand County. Operator drilled below 7000 feet.

In the Desert Creek area of San Juan County, Shell Oil recovered only mud in a drill stem test of its wildcat in sw se nw 2-42s-23e. The test was taken at 5010-5170 feet.

New Mexico

Two New Mexico wildcats were temporarily abandoned. Southern Union Gas suspended operations at the No. 1-C Jicarilla, nw se se 11-

26n-4w, at a total depth of 3617 feet in the Pictured Cliffs. The same operator suspended work on the No. 1-B Jicarilla, se nw ne 26-26n-4w, at 3575 feet.

Western Canada

Possibility of drilling for oil within the city limits of Calgary was seen recently when Western Leasehold Ltd. of Calgary wrote a letter of inquiry regarding possible authorization. The company proposed to drill in the northeastern part of the city, in an area which has largely been devoted to farming. No ruling on the request has yet been announced.

Socony-Vacuum Exploration Co. has changed its name to Socony-Vacuum Oil Co. of Canada Ltd. No change in operating policy has been announced, and H. R. Moorman, executive vice-president and manager, remains in charge of the company.

Union Oil of California and Northern Development Ltd. have recovered oil of 20 to 25 degrees gravity at their Hays No. 1-8, in the Armelgra area of Alberta. Production was from the Basal Ellis sand which was topped at 3100 feet.

Canadian Bishop Oil Ltd. was preparing to start drilling operations on a 160-acre Crown reserve lease in the Pembina field of Alberta. The company has a two-thirds interest in the lease.

The Alberta government's annual oil review calls attention to estimates of oil reserves in the Pembina field ranging from 762,000,000 barrels to 952,000,000 barrels. These esimates would make the Pembina field the largest in Canada. Previous to the discovery of Pembina, the Redwater field, with estimated reserves of 500,000,000 barrels, was the largest known field in Canada.

Production from the Mississippian has been obtained by Alberta Pacific Consolidated Oils, Sunset Oils et al, on a farmout from Standard Oil of California in southwestern Manitoba. The well is the Madison-Whitewater No. 5-16. It was drilled to a total depth of 2610 feet. Oil rose 780 feet in the hole on a test of that depth.

The Supreme Court of Canada has upheld Manitoba's disputed oil rights in 1.4 million acres of Crown lands. The judgment reverses lower court decisions. Directly at stake was a half section in the Portage la Prairie Land Titles District. Suit had been brought by Canadian Superior Oil of California and William Hiebert, who was the registered owner of the half section. It arose when Canadian Superior was turned down by the land titles office when the company attempted to register its lease. When Hiebert bought the land in 1948, the certificate of title did not specifically reserve the rights for the province. The provincial lands act declares that grants from the Crown cannot convey mineral rights unless "they are expressly conveyed in the grant."

WELL TEST WANTED

Will give 3,000 acre lease in Butte County, California, for a 1 000 foot test. Retain 2 per cent override. Alfred H. Tinsley, Consultant Geologist, 312½ D St., Marysville, Calif. 6/30b

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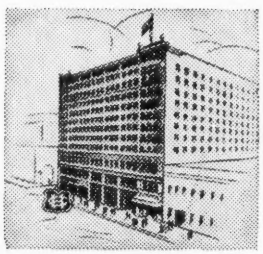

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ARMCO WELDED STEEL PIPE

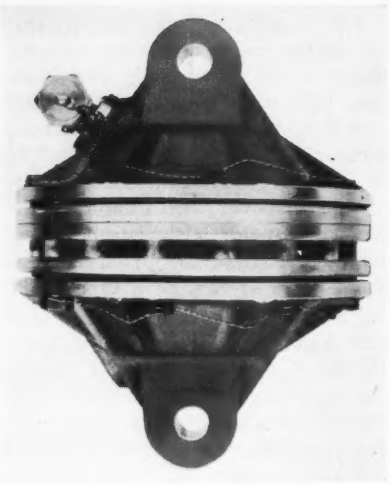
New Diaphragm-Type Pressure Transformer Infinitely Increases Weight Indicator Accuracy

Back in 1926 a brand-new industry was launched: the science of oil well drilling instrumentation. During the years that the Martin-Decker Corporation pioneered and developed this virgin field, many problems were encountered—some were quickly solved; others took years to overcome. Friction has always been one of the biggest headaches in the perfection of more-and-more accurate weight-indicating devices. That is—it has been until now. Exhaustive research, experimentation, and on-the-rig testing by Martin-Decker engineers have borne what is now called the E-80 **Sensater,** a revolutionary diaphragm-type pressure transformer for Type "D" and "E" Weight Indicators. It develops a stroke equal to a piston's travel yet does so with **no friction whatsoever!**

The Sensater is the natural outgrowth of Martin-Decker's years of pace setting improvements in accurate weight indication.

The first weight indicator was a a crude affair—a gauge attached to a simple deflecting piston and cylinder sealed with a leather cup hung on the deadline. But deadline whip and the fact that the gauge was 10 to 20 feet away from the driller made reading difficult, as well as causing inaccuracies.

Martin-Decker's next step was a gauge installed at the driller's position with copper tubing connecting it to a deflection diaphragm-type pressure transformer that hung on the deadline. The problem with this unit was that extreme variations of temperature and changes in hydraulic fluid sometimes affected the dial reading. Furthermore, the diaphragm rubber had such a small area of deflection that extreme care



had to be exercised in calibrating it, since its resistance as well as its concavity increased as more pressure was applied.

This type of weight indicator was greatly improved through the years (for instance, a high-pressure hose replaced the copper tubing that formerly had to be crooked and pigtailed under the rig floor); but to achieve the increased accuracy for which Martin-Decker strove, it was decided that an entirely new type of sensing element was necessary. It was at this time that Martin-Decker engineers perfected the now familiar piston-and-cylinder type pressure transformer—a marvelous advance in its day. It locked in place as an integral part of the Ideal Wire Line Anchor. It had a long stroke; it was unaffected by temperature and fluid changes; and it had an unchanging area pressing against the hydraulic fluid. There was one hitch. Despite precision machining, careful polishing, and extensive lubrication, there was still that old bugaboo—friction.

With the new E-80 Sensater Martin-Decker is satisfied that it has more than surmounted all these obstacles and opened new worlds of accurate weight indication. The Sensater derives its accuracy and sensitivity from a completely new type of mobile diaphragm that, through a novel construction principle, can displace the same amount of fluid as the Type "D" or "E" piston, but—with **no friction.** Unlike ordinary diaphragms, it doesn't deflect, but always moves **with** its backing plate. Consequently, the area pushing against the hydraulic fluid remains constant, transmitting a true indication at all times. This absence of sag in the diaphragm also precludes any chance of its being ruptured by too much pressure. The mobile diaphragm has a ½" U-shaped annulus which is held in place by the Sensater housing. When the diaphragm makes a stroke, the unsupported part of the flexible, U-shaped perimeter moves with a gentle, rolling motion that is free from stretch and friction. The Sensater has no friction-causing packing. Hence, there is nothing to wear out. It is leakproof and self-aligning. It withstands tremendous pressures (up to 5400 pounds per square inch!) It is unaffected by fluid and temperature changes. The accuracy of the weight indicator reading remains constant even if there is a variation in the amount of fluid in the system. Thus, there are no tricky installation, loading, or calibration problems.

The Martin-Decker Corporation now includes an E-80 Sensater as standard equipment on all new Type "D" and "E" Weight Indicators. The Sensater, like the well-known piston type, is installed as an integral part of the Ideal Wire Line Anchor. Deadline load is transformed into hydraulic pressure, transmitting an immediate signal to the gauge at the driller's position. A Sensater can also be purchased alone. It takes but a few minutes to slip the new equipment into an anchor in the place of the old piston.

Engineers and other scientists measure something they call "hysteresis." It merely means molecular resistance, or an internal lagging effect that takes place within any substance when a force is applied to it. The hysteresis of the Sensater diaphragm is so slight that it can be measured only with delicate laboratory instruments. In plotting hysteresis curves on the Sensater, engineering computations had to be made in **ounces** of pressure, rather than in pounds.

Martin-Decker has conquered friction and has perfected an entirely new kind of diaphragm pressure transformer that has a large working area: yet, when it moves, none of the components rubs against any of the others. Lack of friction creates advance standards of weight indication that might well make obsolete all previous types of pressure transformers.

New Valve Permits Injection Of Paraffin Control Plugs Without Oil Flow Interruption

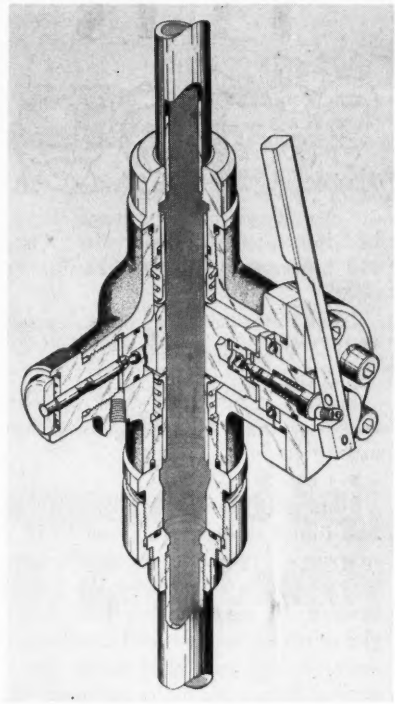
Kobe, Inc., of Huntington Park, California, announce the development and full production of a new Soluble Plug Injector for use as part of the hydraulic system of pumping oil wells. The new injector permits the insertion of soluble plugs into high pressure oil lines without interrupting oil flow.

To perform the operation of injecting soluble plugs, it has heretofore been necessary to shut off flow and drain the line prior to inserting the plug. The new injector, however, eliminates this requirement, greatly simplifying the operation.

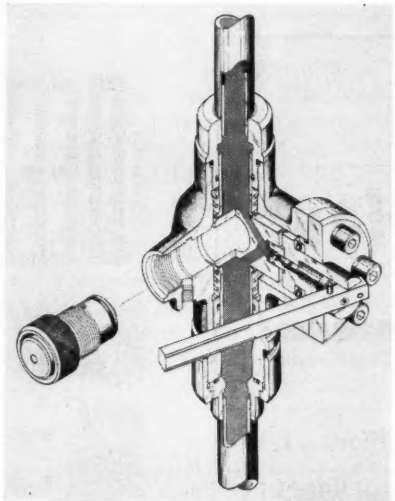
The new injector is applicable for injecting plugs in surface power oil lines at the central power control station. It is also used under the 4-way valve of the parallel type hydraulic Free Pump System for running soluble plugs down the production (small string) tubing.

The injector is available in 1" and 1¼" sizes and is designed for 5,000 psi working pressure.

How It Works—Within the cast steel body is a plug which is square in cross section. Through this square plug is a large diameter hole which serves as the loading chamber for the soluble plug. In the operating position, the square plug is oriented so the large hole is in line with the flow going through the injector. The square plug itself is held between two spring-loaded shoes which serve to direct flow through the hole.



Cut-away views of new Kobe Soluble Plug Injector, showing both operating and loading positions.



When the square plug is turned 90° (to "Load" position) by the external operating handle, there is a fluid channel through another hole drilled in the square plug to bypass the loading chamber.

Bumping a bleeder valve in the loading cap, relieves the line pressure within the loading chamber and the cap can be removed. At this time the line fluid flows through the bypass channel. As soon as the soluble plug is inserted in the loading chamber and the cap replaced, the operating handle is turned back to "Operate" position. This puts the soluble plug into the flow stream which forces it down the line. Flow through the injector is continuous throughout the operation — it is never interrupted.

Availability — The soluble plug injectors are available, in any quantity. Order from the manufacturer, KOBE, INC., 3040 East Slauson Avenue, Huntington Park, California, or through any of the company's district offices.

Improvements Made at New Hotel Clark

Of considerable interest to the Oil Industry is the fact that the New Hotel Clark in downtown Los Angeles was recently dedicated after an 18-month, $750,000 remodeling and redecorating program which has restored it to the status of a first-class 550-room commercial hotel. Innovations include the Orleans Room—a beautiful new dining room—and two distinctive cocktail lounges. All rooms have been completely redecorated and refurnished. Taking advantage of its strategic downtown Los Angeles location, the New Clark also features an entire floor of especially well-equipped banquet rooms suitable for all types of industry meetings.

Beverly Field Test Drilling

Out Beverly Hills way in the Beverly field, Universal Consolidated Oil Company is making hole near 8800 feet with its Twentieth Century Fox No. 2 well on Section 25-1s-15w near the corner of Heath avenue and Beverly boulevard. The well was carried to 8846 feet, but is redrilling because of a fishing job which called for a fresh start from 3400 feet.

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THIS

LAUGH OFF!!

Ralph and Jack married Anne and Betty at a double ceremony. Anne belonged to Ralph and Betty belonged to Jack. The four newly weds spent their honeymoon together at Niagara Falls; they occupied adjoining rooms, sat at the same table and became inseparable — well, almost inseparable.

After dinner one evening they started upstairs and as they neared their rooms, lightning struck a transformer and out went the lights! They were in pitch darkness!

Groping around, they made their way into their rooms and quietly undressed for bed, Ralph, a religious fellow, knelt to pray. Just as he completed his prayer, the lights came on and he saw much to his astonishment that it was Betty there in his bed instead of his own wife, Anne. He jumped up and dashed for the door.

"Too late to hurry now," cooed Betty, "Jack never prays."

A man is never so weak as when some woman is telling him how strong he is.

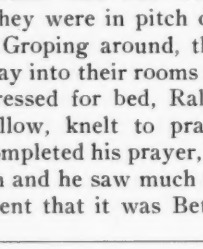
A new bride was asked what she had found to be the biggest thrill of marriage. "It was certainly thrilling when Henry took me to the license bureau. It was another thrill when the minister pronounced us man and wife. I got an awful bang out of seeing Henry sign the register 'Mr. and Mrs.' I do believe though, that my biggest thrill was thumbing my nose at the house detective."

When little Johnnie returned home from his first day at school, his mother asked him what he had learned that day.

"Nothin'!" said Johnnie, "but the teacher asked me something I couldn't answer. She wanted to know if I favored my father or my mother."

"Well," answered his mother. "I suppose she was wondering which of us you resemble. If she asks you again, just tell her that you have your father's features but your eyes are like mine."

Little Johnnie was hardly inside the school room the next morning when he made himself heard. "I can answer your question now, teacher," he shouted, "my eyes are like my mother's, but I have my father's fixtures!"



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